Landscape Construction Drawings For:

RiverWalk Parkway Medians at La Sierra University

Phases 1, 2 & 3

Prepared For:

Griffin Industries

GENERAL NOTES FOR PUBLIC MAINTAINED LANDSCAPES

1. All related work shall conform to the City of Riverside Park and Recreation Department Standards and Specifications for Planting and Irrigation work. (Specifications section 02441 and 02480).

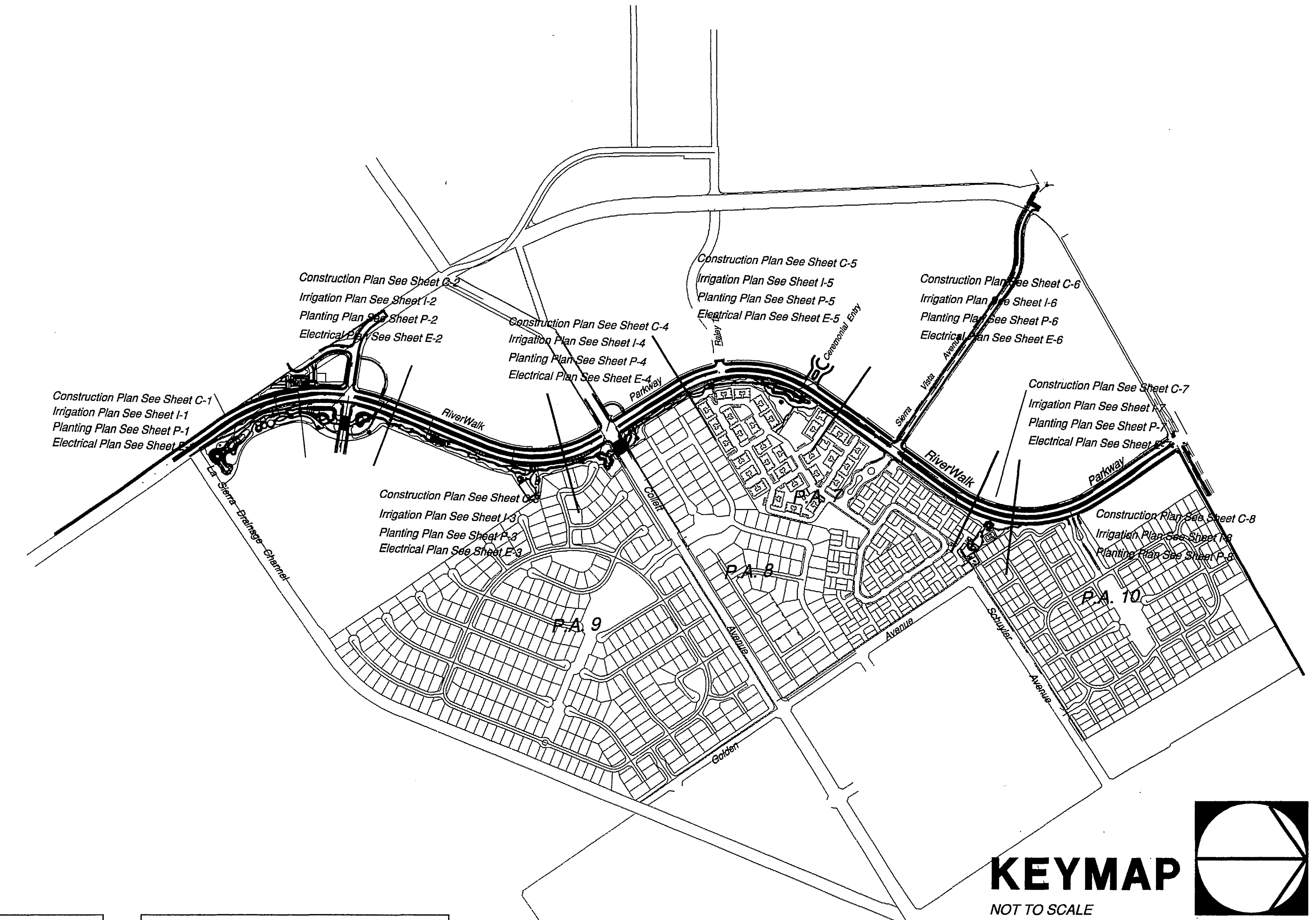
2. When calling for inspections contact the Park Projects Inspector a minimum of 48 hours in advance at (909) 715-3469 to schedule an inspection. A Field Notice will be issued as written approval for each stage of inspection. A verbal approval will not be acceptable. Inspections are required per the standard specifications, and include but are not necessarily limited to the following:
   a. After completion of final grading of the lots and when all utility services and sewer laterals have been marked, but prior to initiating any landscape work within the public right of way;
   b. At time of installation of irrigation sleeves and constant pressure mainlines, but prior to backfill of trenches for same (Note: mainlines must be pressure tested in the presence of the Park Projects Inspector);
   c. At time of installation of irrigation valves, laterals and heads;
   d. For spotting of all trees prior to digging planting pits;
   e. While digging plant pits and planting/relocating trees;
   f. After planting and all other indicated or specified work has been completed, for start of maintenance;
   g. At substantial completion of the project for City's acceptance to start the required maintenance period;
   h. At the end of the Maintenance Period, the Contractor /Developer shall call the Park Projects Inspector at (909) 715-3469 for a final acceptance inspection in order to be released from maintenance. Developers bonds will not be released until after receipt of written notification from the City that the project has passed final inspection and the Park and Recreation Department is assuming maintenance responsibilities.

3. The Developer shall be responsible to acceptably maintain all plantings for a minimum period of ONE (1) year.

4. All public landscape areas to be maintained by the HOA must be automatically irrigated.

*NOTE: In the interest of public safety and maintenance the Park Projects Inspector shall have the authority to revise the tree quantites and locations shown on approved plans based upon field conditions found at the time of installation of the trees.

TheCollaborativeWest



APPROVAL BY:
PLANNING DEPARTMENT

Signature (For Entire Set of Plans) — Date 3/15/02

APPROVAL BY:
PARKS AND RECREATION DEPARTMENT

Signature (For Entire Set of Plans) — Date 03/15/02

NOTE TO CONTRACTOR:
Pinkline sets are for bid purposes only.
Blueline construction sets will be issued at award of bid.

GENERAL NOTES

1. All work shall conform to City standards and these plans. In case of conflict, city standards shall prevail.
2. Notes are directed to the work of the contractor unless otherwise noted on the plans.
3. Work not intended to be under contractor's contract:
   A. N.I.C. – Not in Contract
   B. By others
   C. Existing
4. Contractor shall verify with Landscape Architect prior to the start of work, that plans are current and approved.
5. These plans are based on improvement plans by Canty, Pace, & Webb Engineering Civil information contained within these plans are for reference only.
6. The contractor shall obtain all necessary and/or required permits and pay all related fees and/or taxes required to install the work on these plans.
7. Contractor shall submit a schedule of work, to be approved by the owner and Landscape Architect, prior to beginning the project. The work shall be in accordance with said schedule.
8. The contractor shall be responsible for coordinating his work with other trades.
9. Contractor shall notify the owner and Landscape Architect in writing of any discrepancies in existing conditions or within the plans prior to beginning the work.
10. It is the responsibility of the contractor to familiarize himself with all grade differences, location of walls and above and below ground utilities. The contractor shall repair or replace all items damaged by his work.
11. The contractor shall notify the Landscape Architect prior to beginning work and shall be responsible for coordinating with the general contractor, Landscape Architect and City for all required inspections and tests of the installed work.
12. All material shall be new unless otherwise specified.
13. The contractor shall immediately upon being awarded the contract, make any arrangements necessary to insure that all materials and supplies will be available when needed for this project.
14. Additions and/or deletions of material and/or labor shall be made at unit prices established with the contractor prior to beginning the work.
15. Determination of "equal" substitutions shall be made only by the Landscape Architect, with the concurrence of the Park Projects Insector.
16. The Landscape Architect shall be notified no less than 48 hours in advance of any inspections or meetings. The Park Projects Insector shall be contacted a minimum of 48 hours before each required inspection to request such inspection.
17. Contractor shall be backcharged for Landscape Architect's time when inspections are called for and it is found that the work is not significantly ready upon inspection or the appointment is not kept.

OWNER/CONSULTANT

Owner:
Griffin Industries
4710 RiverWalk Parkway
Riverside, CA 92505
909–509–8622
Contact: Toby Waxman

Landscape Architects:
The Collaborative West Inc.
100 Avenida Miramar
San Clemente, CA 92672
Phone: 949–366–6624
Contact: Richard Crichton

Irrigation Consultant:
Landscape Irrigation Consulting
33282 Golden Lantern Street, Suite 201
Dana Point, CA 92629
949–661–0905
Contact: Frank Simon

Civil Engineers:
Pacific Advanced Civil Engineering.
17902 Georgetown Lane
Huntington Beach, CA 92647
714–843–5734 714–848–4922 FAX
Contact: Sonny Sim

Albert A. Webb Associates
3788 McCray St.
Riverside, CA 92506
909–686–1070
Contact: Richard Teller

Canty Engineering Group
2020 Iowa Ave., Ste. 102
Riverside, CA
909–683–5234
Contact: John Canty

Utility Consultant:
Butsko Utility Design
27403 Ynez Road, Ste. 208
Temecula, CA 92591
909–676–4090
Contact: Carl Richards

APPROVALS

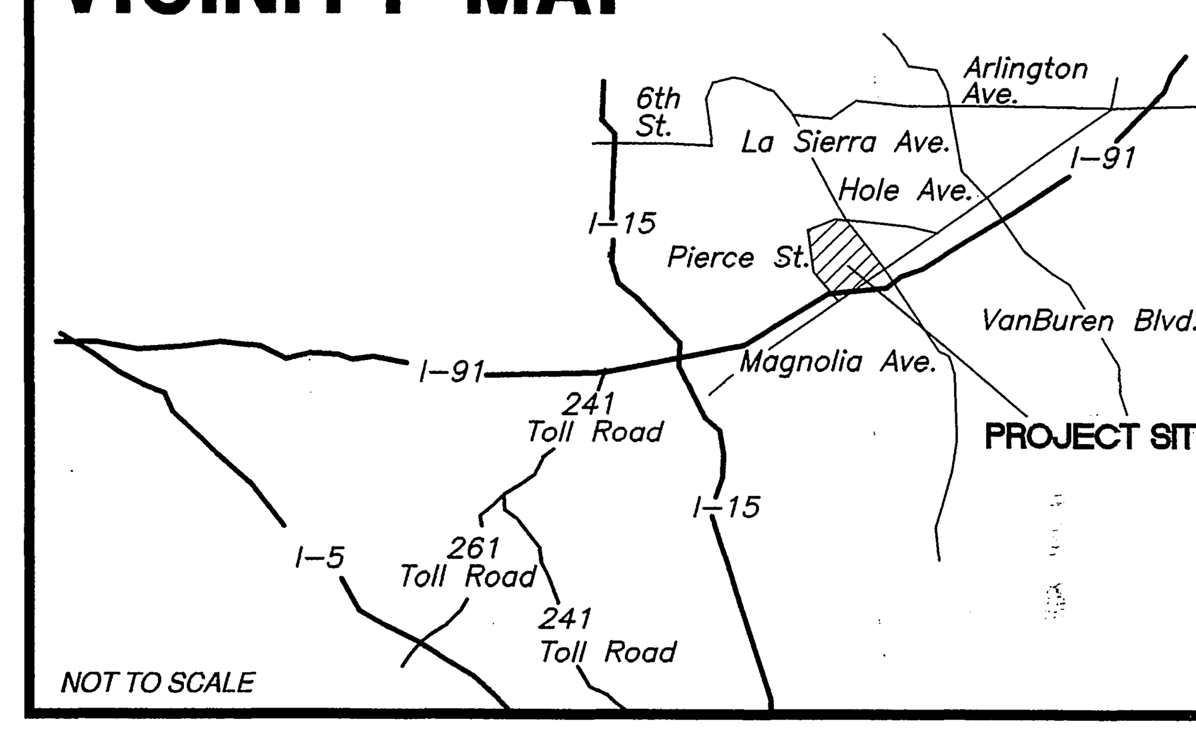
City Approval – City of Riverside (Parks and Recreation) –
City Approval – City of Riverside (Planning Department) –
City Approval – City of Riverside (Public Works) –

SUBMITTALS

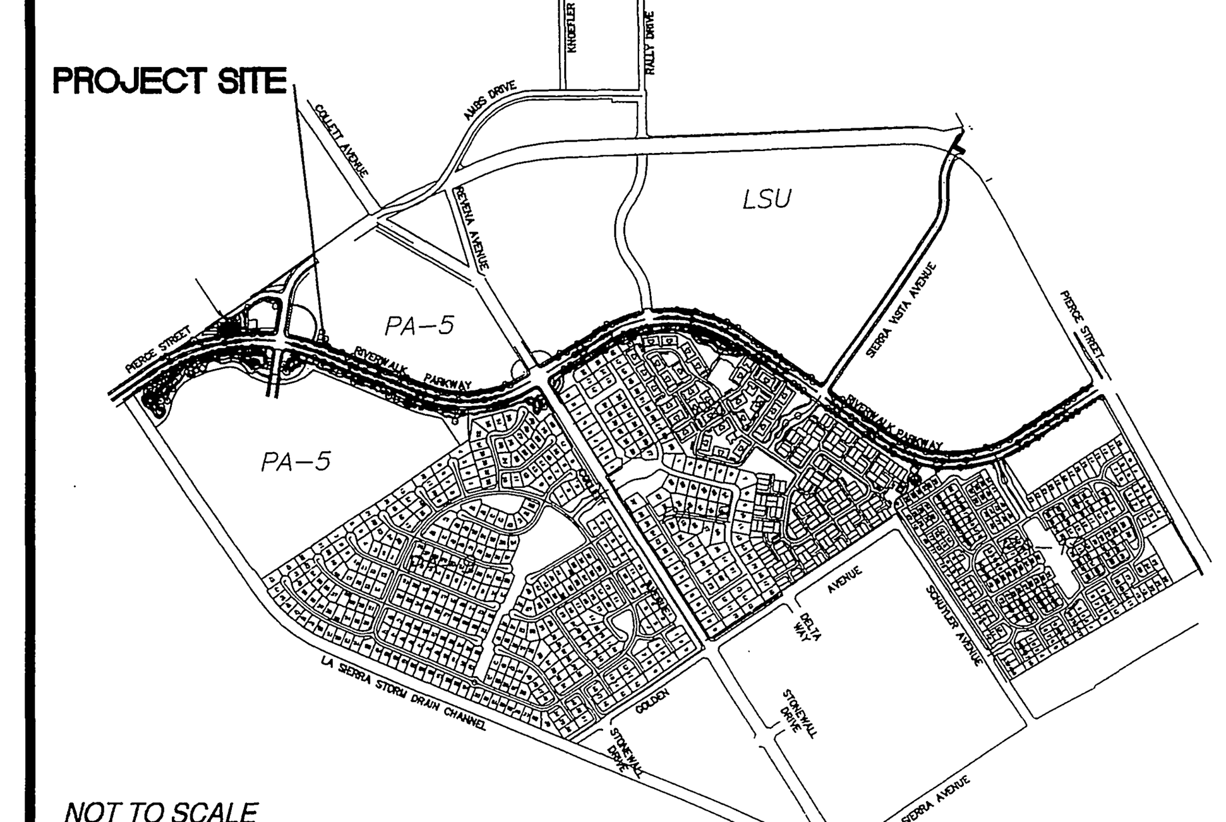
Progress Prints – July 7, 2000
City Submittal (Prelim.)– City of Riverside (Parks and Recreation) – October, 2000
City Submittal – City of Riverside (Parks and Recreation) – January 9, 2001
City Submittal – City of Riverside (Building and Safety Dept.) – February 1, 2001
City Submittal – City of Riverside (Parks & Rec., Bldg./Safety, Public Works) – June 13, 2001
City Submittal – City of Riverside (Public Works) – August 8, 2001
City Submittal – City of Riverside (Planning Department) – October 8, 2001
City Submittal – City of Riverside (Parks and Rec.) – October 31, 2001
City Submittal – City of Riverside (Parks and Rec.) – February 26, 2002

INDEX TO DRAWINGS

VICINITY MAP



SITE LOCATION



City Business Tax Certificate No. 103549 Exp. Date 03-01-03

Underground Service Alert
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227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Exp. 2/28/04 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

BENCH MARK

MARK	REVISIONS	APPR.	DATE
1	Turn Lane Revision per Client Request 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

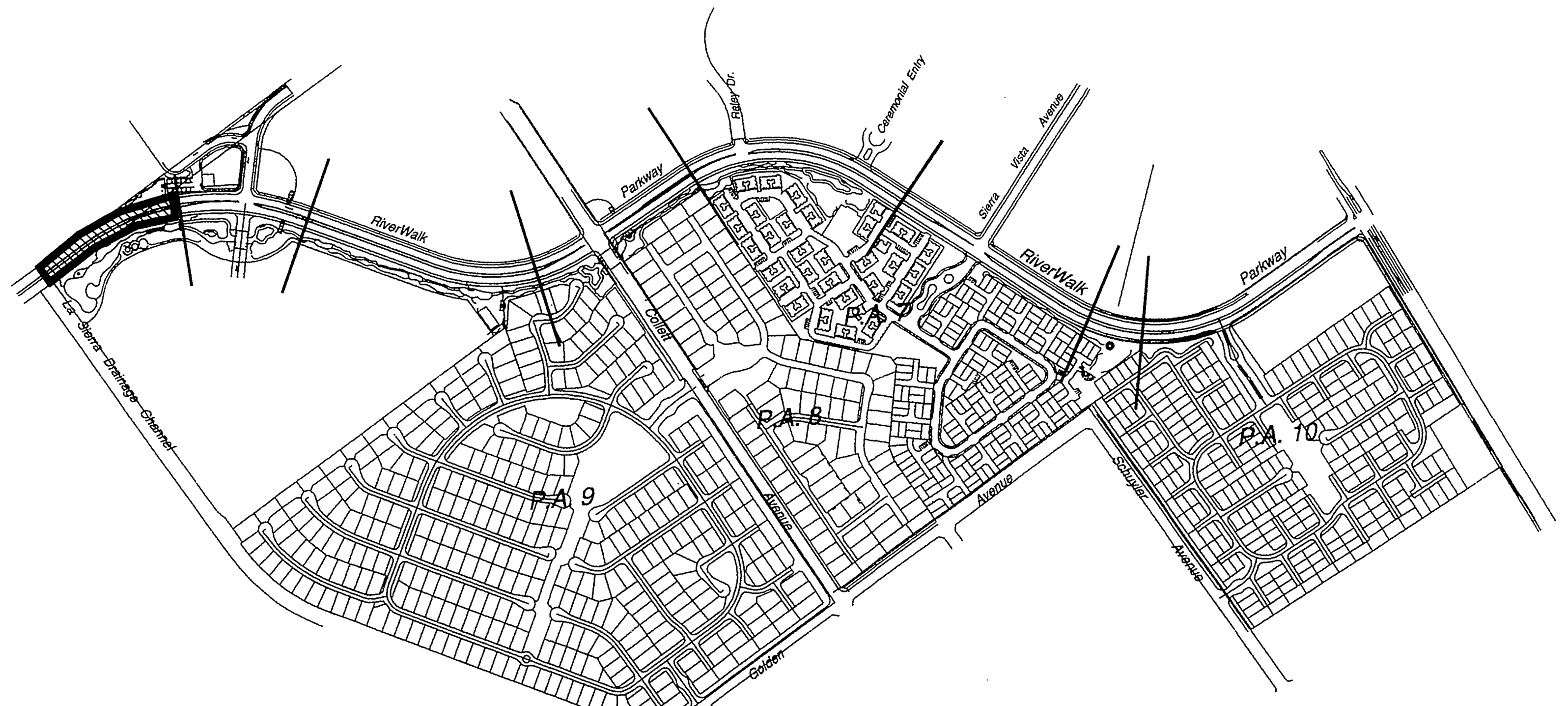
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		3/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21/02

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

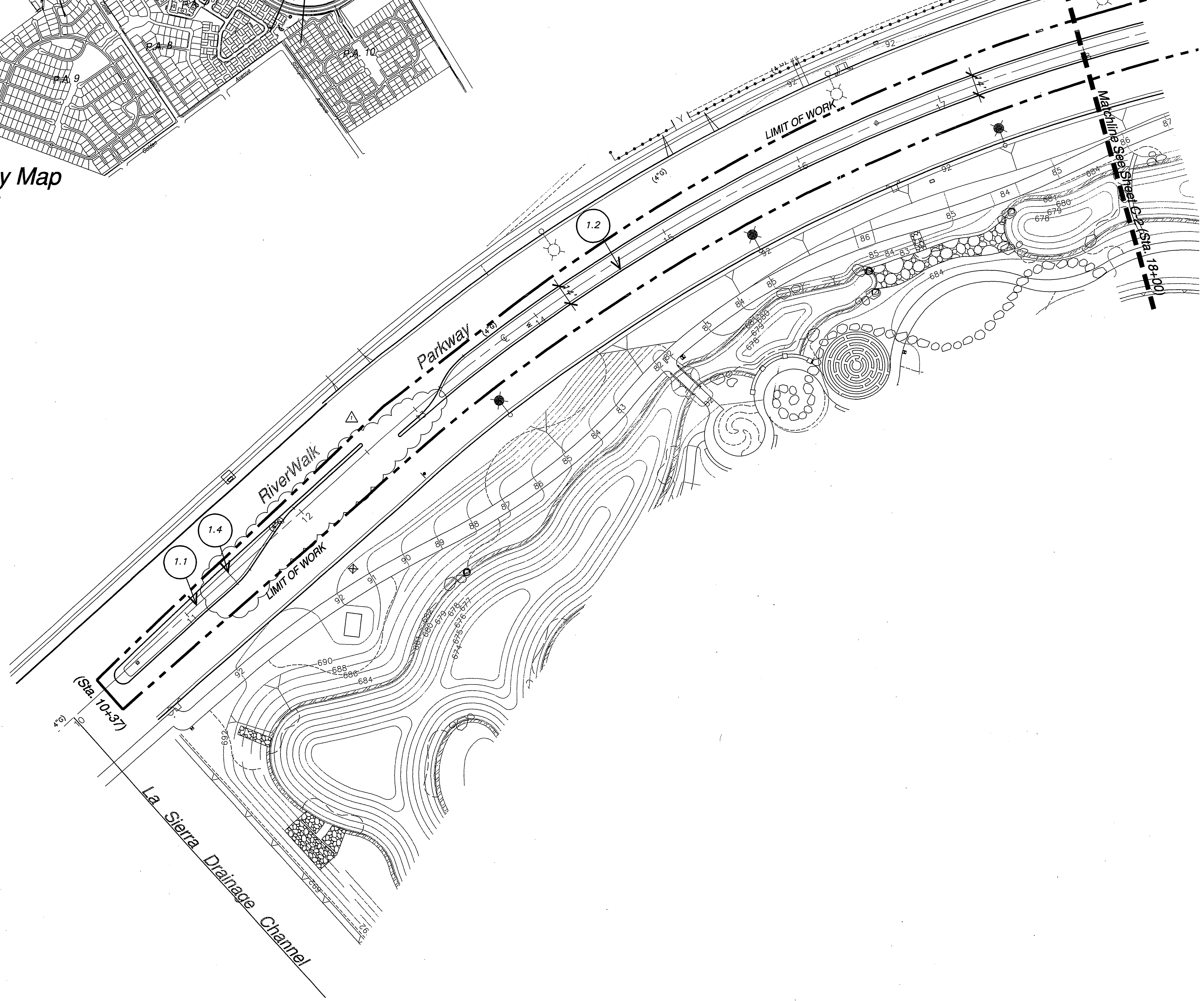
Title Sheet
Riverwalk Parkway Medians

PROJECT NO. GI01-000
R-3561-ML
SHEET 1 OF 36
FILE NO.: T

RiverWalk Parkway Medians PC - 4268 -M



Key Map
NTS



CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
1.2	Concrete Maintenance Strip	Intergral colored concrete paving w/ a light broom finish. Color to be C–26 Antique Cork. Pattern as approved by Planning Department. Provide cold joint where strip is adjacent to curb on both sides. Provide cold joint adjacent to curb where strip is adjacent to planting on one side.	B, CD–1
~~1.3~~	~~Announcement Monumentation~~		~~C, CD–1~~
	~~Pilaster~~	~~CMU block; Red Mountain leaderstone veneer. Drystack mortarless look. See stone wall notes below.~~	~~Valley Building~~
	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD–1

SAMPLES AND MATERIALS REQUIREMENTS:

- Contractor will provide the following samples or materials in the size and quantity noted. Contractor will match approved sample or remove and replace work at his own expense.

SAMPLES

A. One (1) 3' x 3' sample of intergral color #C–26 Antique Cork with a light broom finish.

NOTE
GRADING PER CANTY ENGINEERING

Legend

(circle with arrow)	Construction Callout
(symbol)	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
P.O.B.	Point of Beginning
P.A.	Planting Area

Joint Notes:

1. Provide tooled score joints at maintenance strip every 5' o.c.
2. Provide cold joints where maintenance strip is adjacent to curb on both sides of median.
3. Where existing curb provides expansion joint, provide matching joint (location, type and size) transversing maintenance strip. All expansion joints refer to sheet CS–1, 3.3. See detail 'A', sheet CD–1.

Detail Callout

CD–2/D
Detail Letter
Sheet Reference

0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-02

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PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No. 1972
Signature
Exp. 2/28/04
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
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Habitat Restoration

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San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com

TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
△1	Turn Lane Revision per Client Request	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

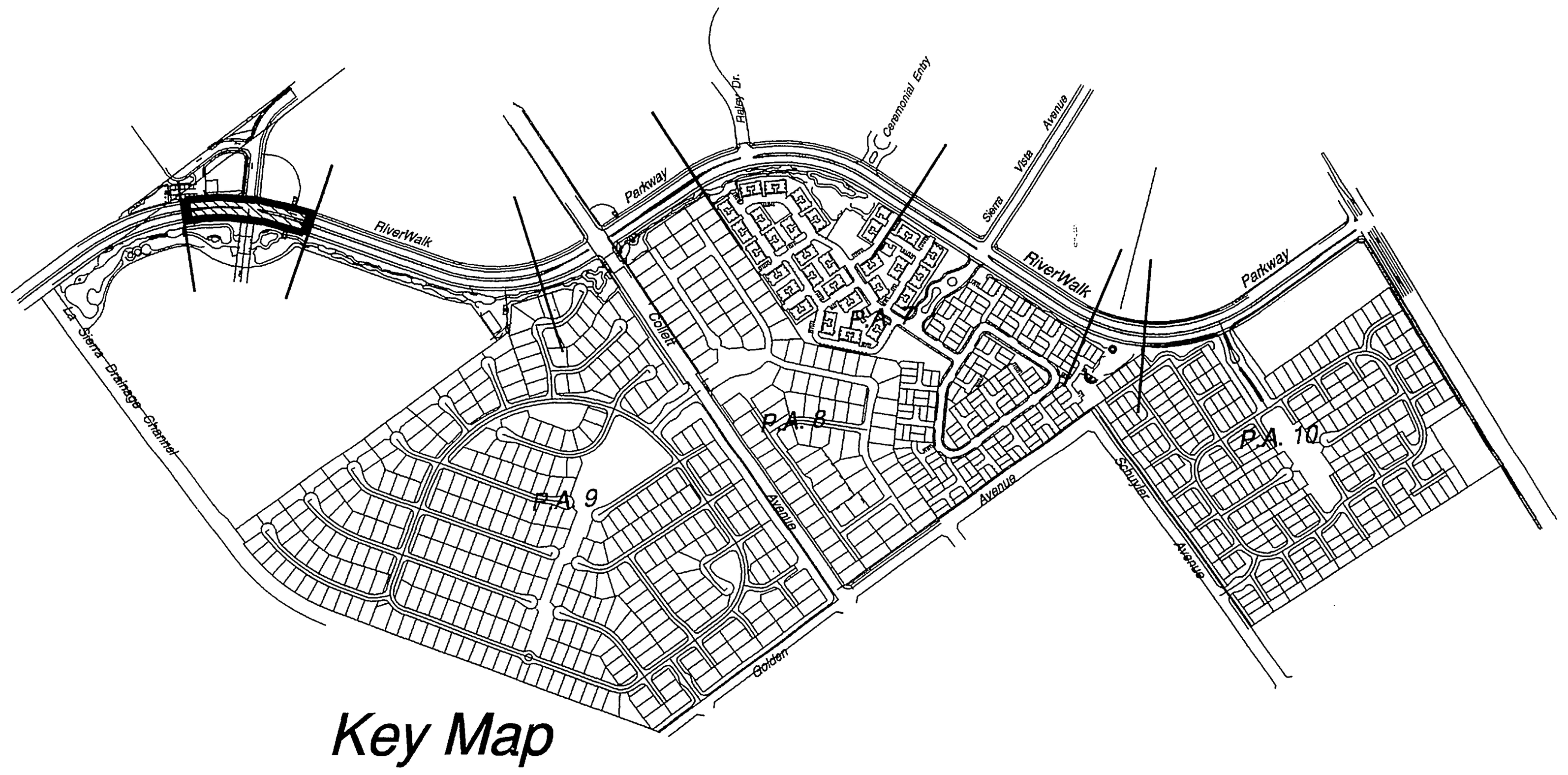
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE

Construction Plan

Riverwalk Parkway Median
Sta. 10+37 - 18+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 2 OF 36
FILE NO.: C-1

RiverWalk Parkway Medians PC - 4268 -M1



Key Map
NTS

CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
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~~1.3~~	~~Announcement Monumentation~~		~~C, CD-1~~
	~~Pilaster~~	~~CMU block; Red Mountain leaderstone veneer. Drystack mortarless look. See stone wall notes below.~~	~~Valley Building~~
	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

Legend

○	Construction Callout
◐	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
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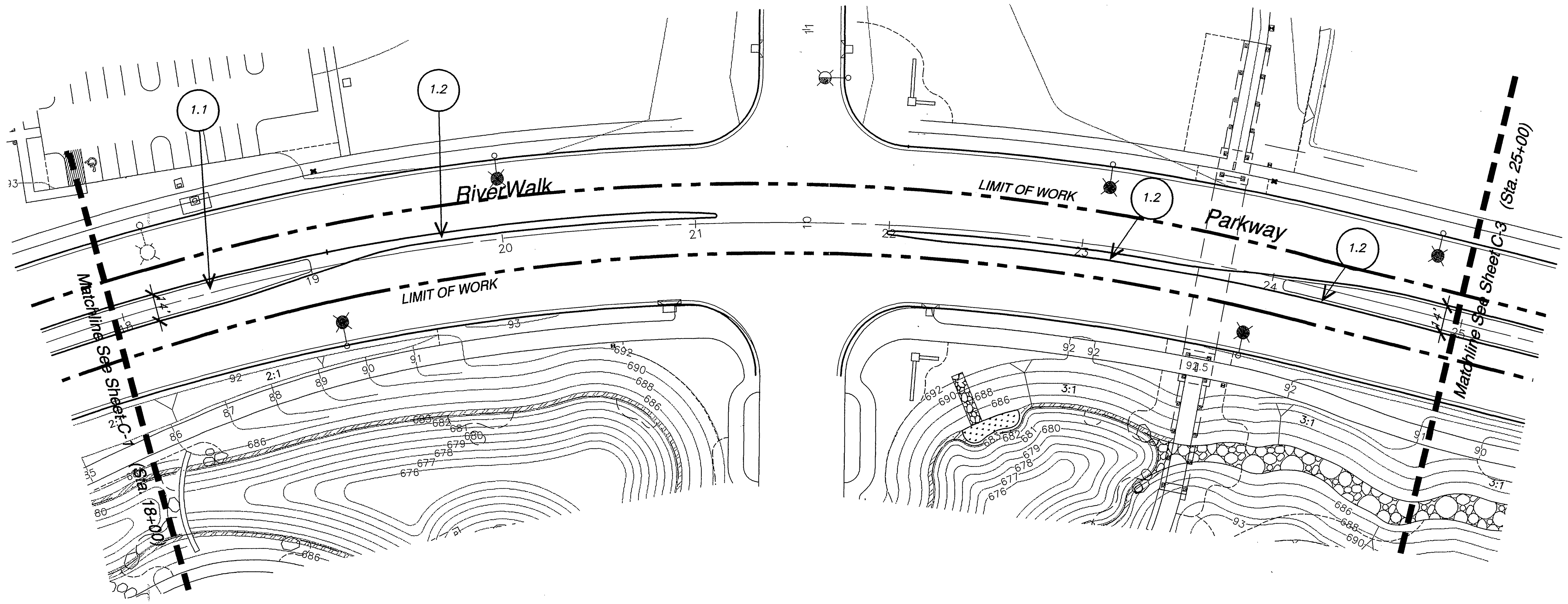
Detail Callout
CD-2/D
Detail Letter
Sheet Reference



0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

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PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 3/15/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ________

Landscape Architecture
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100 Avenida Miramar
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Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/16/02
PARKS DEPT.		3/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21/02

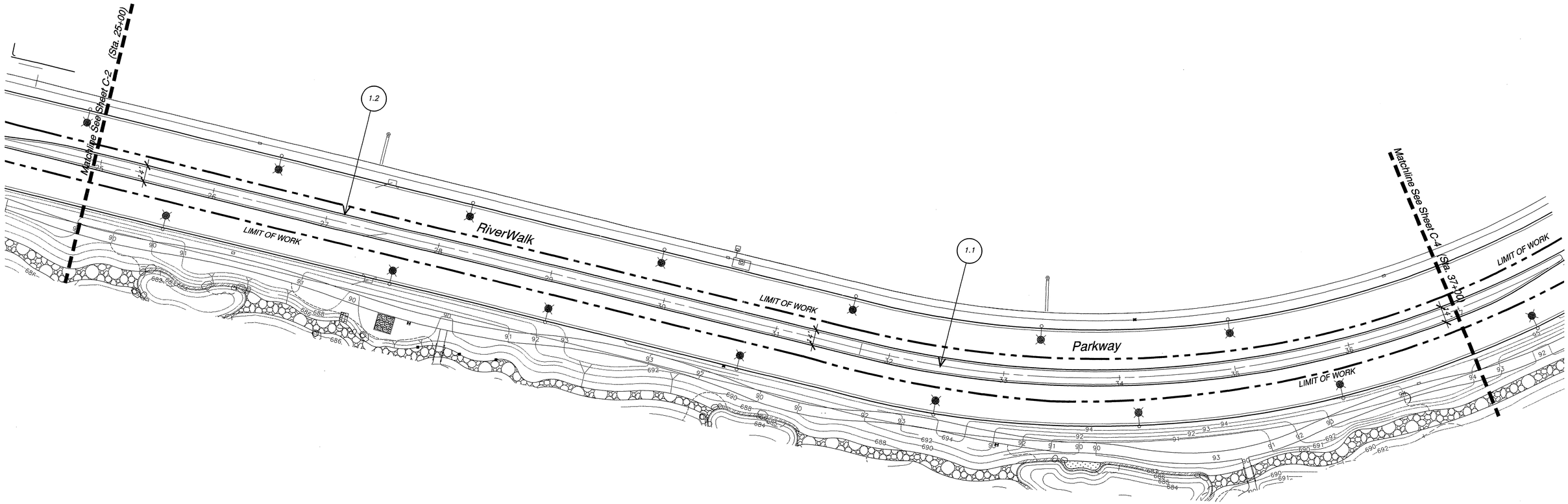
APPROVED BY ________
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

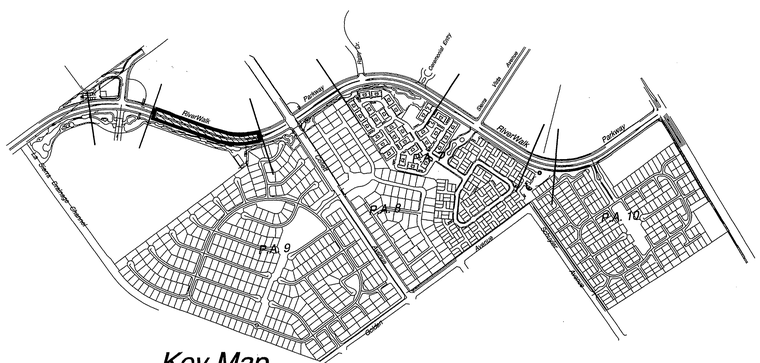
Construction Plan

Riverwalk Parkway Median
Sta. 18+00 - 25+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 3 OF 36
FILE NO.: C-2

RiverWalk Parkway Medians PC - 4268 -M1





Key Map
NTS

CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
1.2	Concrete Maintenance Strip	Natural grey concrete; light broom finish with 24" sq. scoring pattern as approved by Planning Department. Provide cold joint where strip is adjacent to curb on both sides. Provide cold joint adjacent to curb where strip is adjacent to planting on one side.	B, CD-1
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	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

Legend

- Construction Callout
- Point of Beginning
- ℄ Center Line
- B.C.R. Beginning of Curb Radius
- F.O.C. Face of Curb
- P.O.B. Point of Beginning
- P.A. Planting Area

Joint Notes:

1. Provide tooled score joints at maintenance strip every 5' o.c.
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Detail Callout

CD-2/D
- D: Detail Letter
- CD-2: Sheet Reference

0 20 40 80
SCALE: 1" = 40'-0"

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Nolan, Lic. No. 1972 — Signature — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
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San Clemente
California 92672
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fax 949.366.6626
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TheCollaborativeWest

SCALE: 1" = 40'-0" BENCH MARK
DATE: Feb. 26, 2002

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S		03/21/02

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

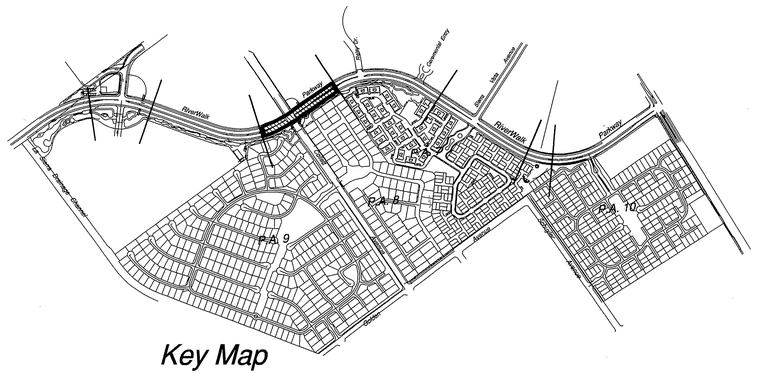
	BY	DATE
APPROVED BY		
PRINCIPAL ENGR.		5/15/02
PLANNING DEPT.		5/15/02
PARKS DEPT.		5/15/02
Dpty. P.W. Director		
STREET SERVICES		5/21/02

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 5/20/02

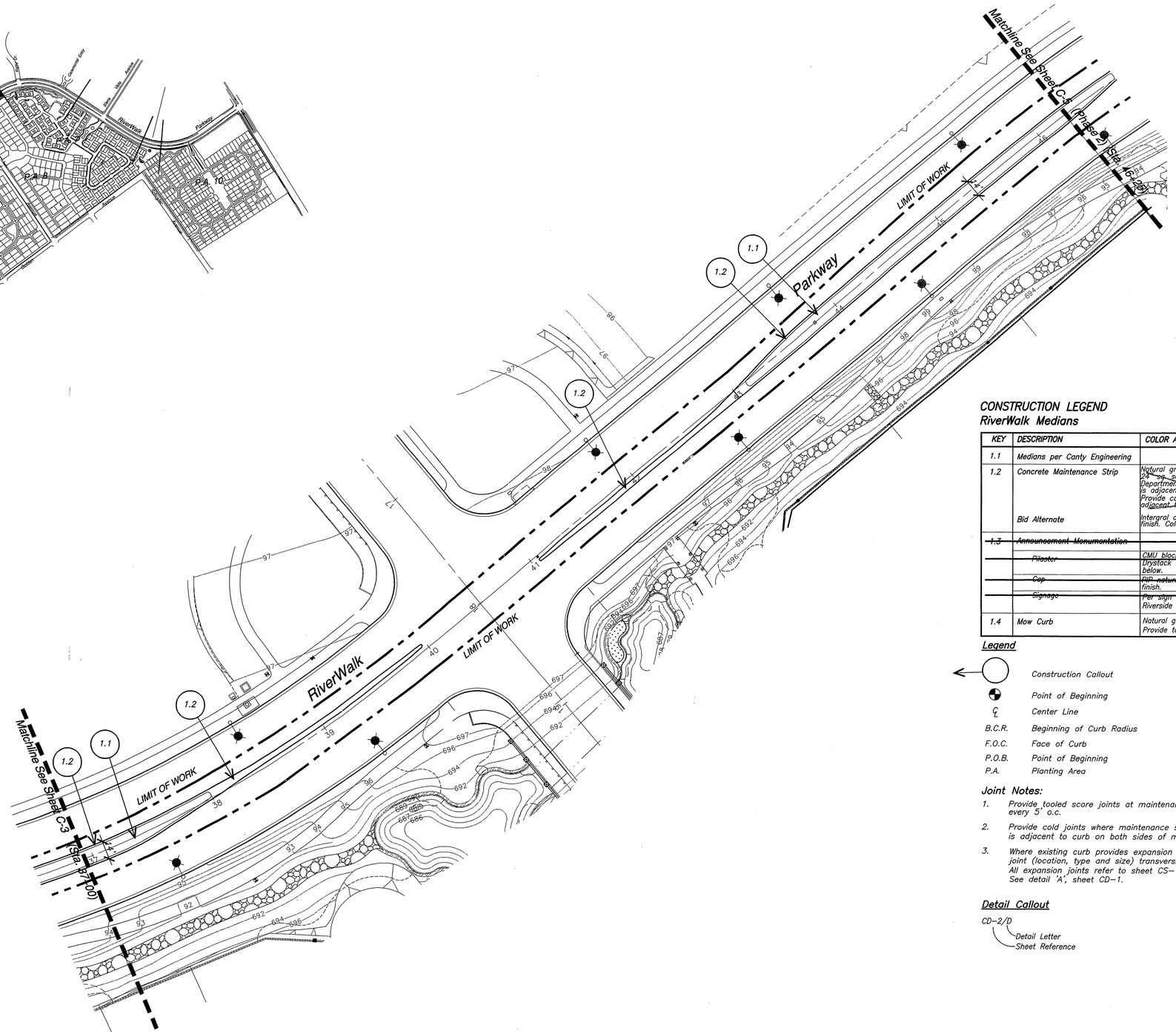
Construction Plan
Riverwalk Parkway Median
Sta. 25+00 - 37+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 4 OF 36
FILE NO.: C-3

RiverWalk Parkway Medians PC - 4268 -M1



Key Map
NTS



CONSTRUCTION LEGEND
RiverWalk Medians

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	~~Cap~~	~~RIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

Legend

- Construction Callout
- Point of Beginning
- ℄ Center Line
- B.C.R. Beginning of Curb Radius
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Detail Callout

CD-2/D
- D — Detail Letter
- CD-2 — Sheet Reference

0 20 40 80
SCALE: 1" = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-2003

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TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT — Paul L. Hansen, Lic. No. 3102 — Signature — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6635
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S		03/21/02

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

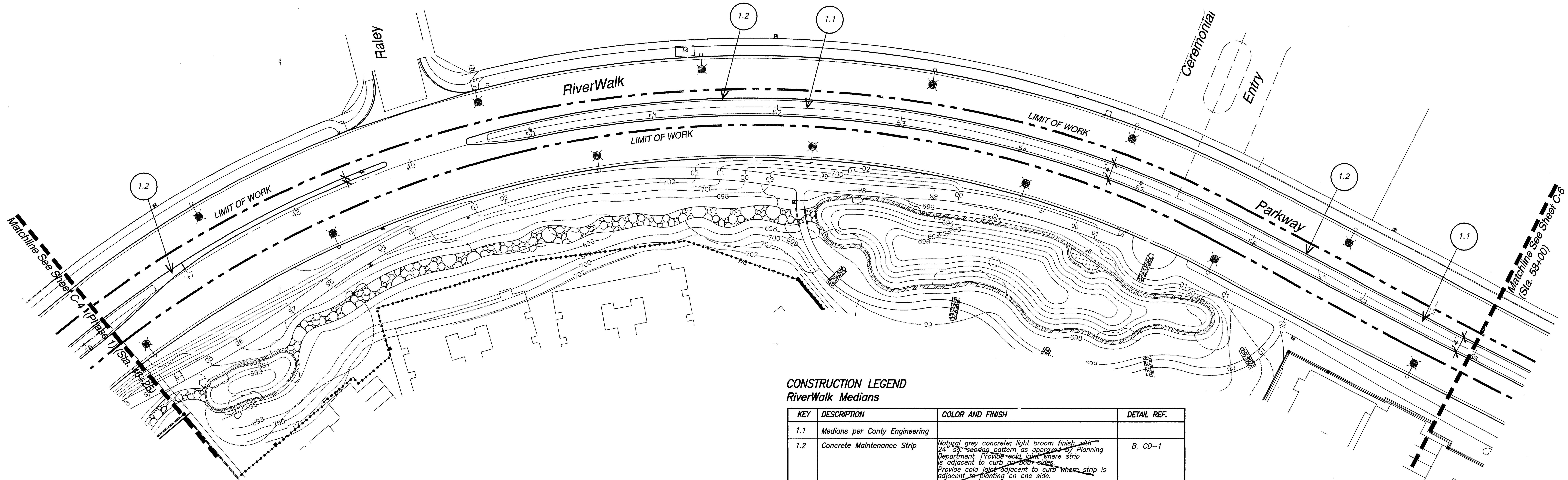
	BY	DATE
APPROVED BY		
PRINCIPAL ENGR.		
PLANNING DEPT.		
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE

Construction Plan
Riverwalk Parkway Median
Sta. 37+00 - 46+25

PROJECT NO. GI01-000
R-3561-ML
SHEET 5 OF 36
FILE NO.: C-4

RiverWalk Parkway Medians PC - 4268 -M1



CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
1.2	Concrete Maintenance Strip	~~Natural grey concrete; light broom finish with 24" sq. scoring pattern as approved by Planning Department. Provide cold joint where strip is adjacent to curb on both sides. Provide cold joint adjacent to curb where strip is adjacent to planting on one side.~~	B, CD–1
	Bid Alternate	Intergral colored concrete paving w/ a light broom finish. Color to be C–26 Antique Cork.	
~~1.3~~	~~Announcement Monumentation~~		~~C, CD–1~~
	~~Pilaster~~	~~CMU block; Red Mountain leaderstone veneer. Drystack mortarless look. See stone wall notes below.~~	~~Valley Building~~
	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD–1

Legend

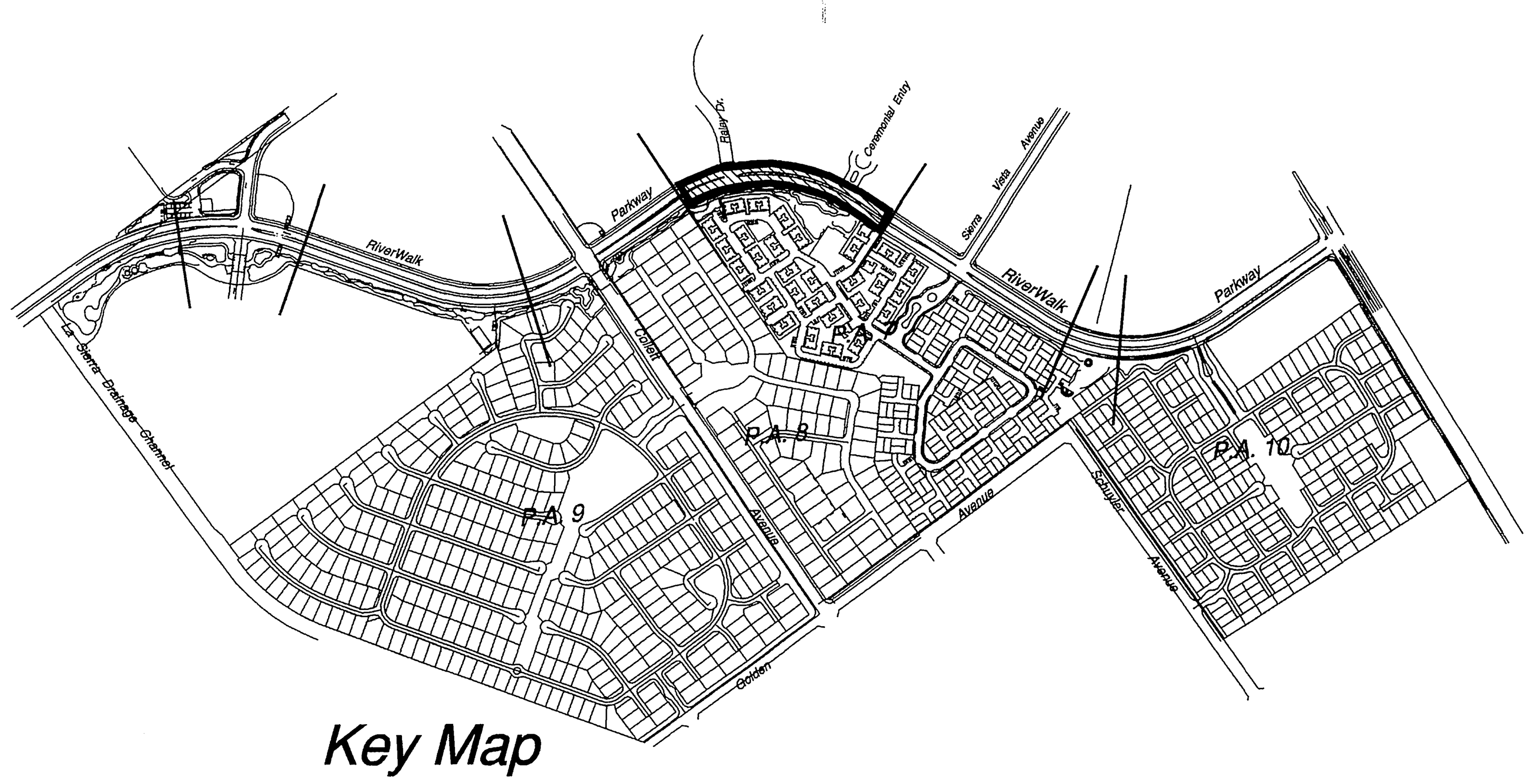
○	Construction Callout
⊕	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
P.O.B.	Point of Beginning
P.A.	Planting Area

Joint Notes:

1. Provide tooled score joints at maintenance strip every 5' o.c.
2. Provide cold joints where maintenance strip is adjacent to curb on both sides of median.
3. Where existing curb provides expansion joint, provide matching joint (location, type and size) transversing maintenance strip. All expansion joints refer to sheet CS–1, 3.3. See detail 'A', sheet CD–1.

Detail Callout

CD–2/D
Detail Letter
Sheet Reference



Key Map
NTS

0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-2003

Underground Service Alert
Call: TOLL FREE 1 – 800 227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 3/15/02 Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
△1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

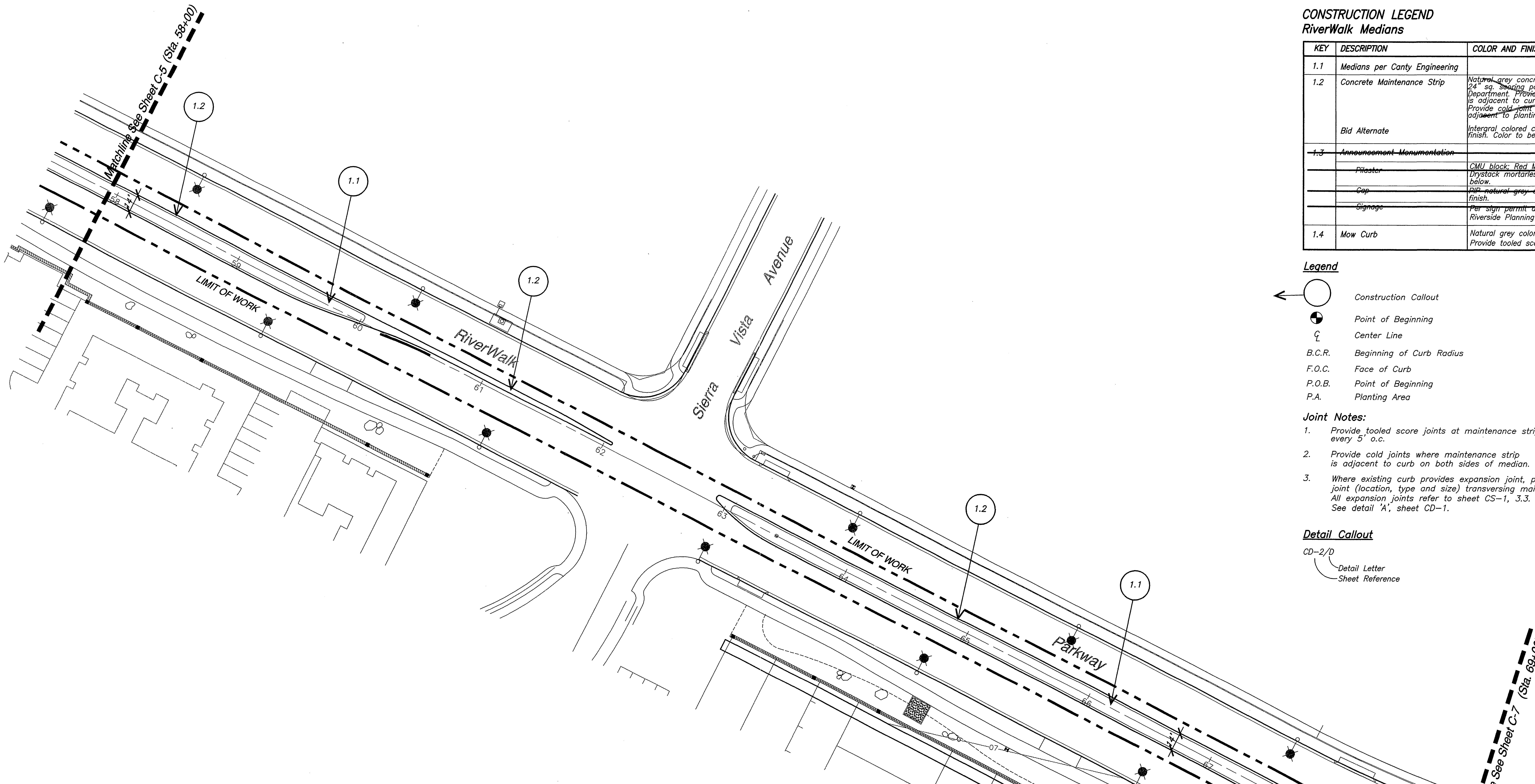
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		3/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21/02

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Construction Plan
Riverwalk Parkway Median
Sta. 46+25 - 58+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 6 OF 36
FILE NO.: C-5

RiverWalk Parkway Medians PC - 4268 -M2



CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
1.2	Concrete Maintenance Strip	~~Natural grey concrete; light broom finish with 24" sq. scoring pattern as approved by Planning Department. Provide cold joint where strip is adjacent to curb on both sides. Provide cold joint adjacent to curb where strip is adjacent to planting on one side.~~	B, CD-1
	Bid Alternate	Intergral colored concrete paving w/ a light broom finish. Color to be C-26 Antique Cork.	
~~1.3~~	~~Announcement Monumentation~~		~~C, CD-1~~
	~~Pilaster~~	CMU block; Red Mountain leaderstone veneer. Drystack mortarless look. See stone wall notes below.	~~Valley Building~~
	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast~~ finish.	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of~~ Riverside Planning Department.	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

Legend

(circle)	Construction Callout
(symbol)	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
P.O.B.	Point of Beginning
P.A.	Planting Area

Joint Notes:

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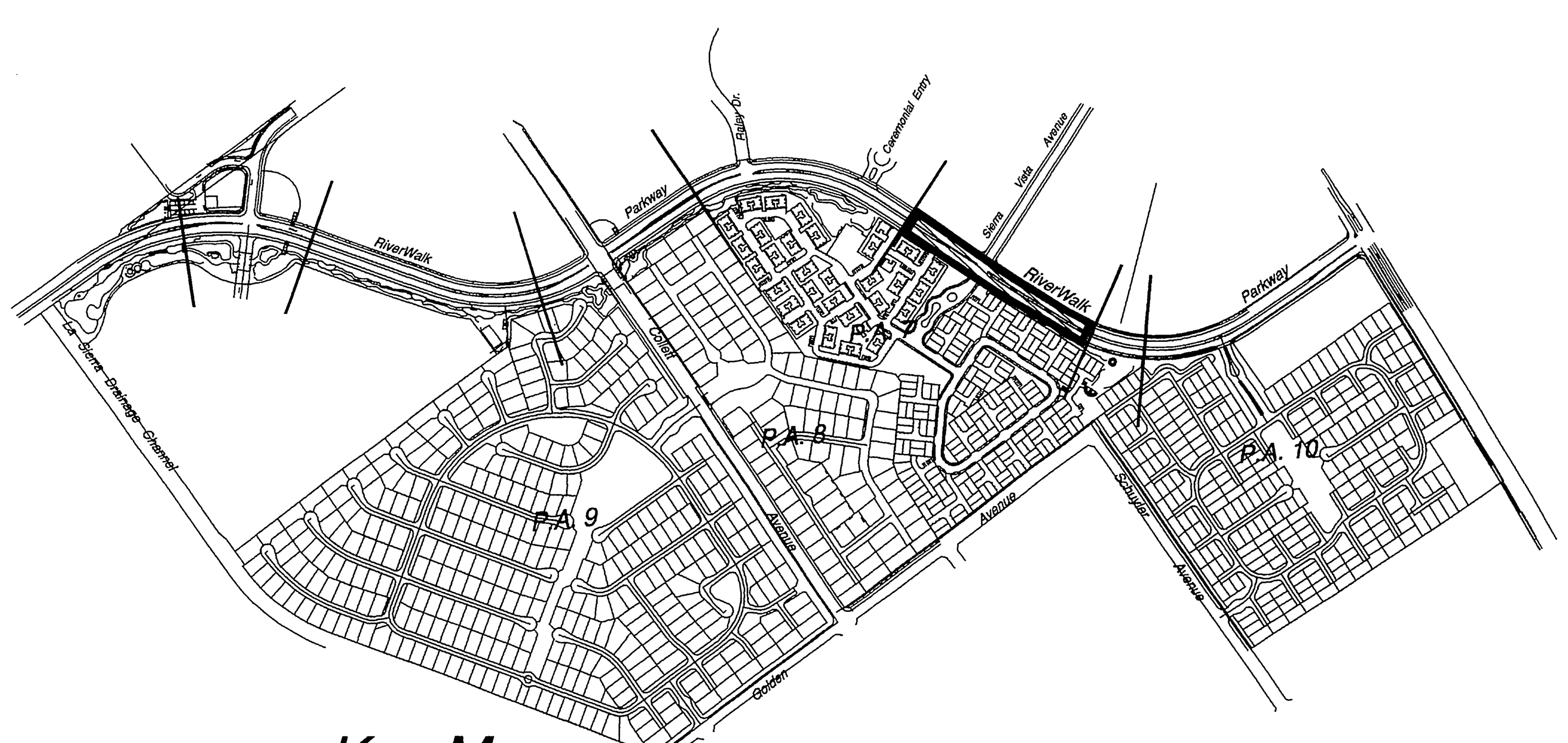
Detail Callout

CD-2/D
Detail Letter
Sheet Reference



Key Map
NTS

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 3/13/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration

100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com

TheCollaborativeWest

SCALE: 1" = 40'-0"
BENCH MARK
DATE: Feb. 26, 2002

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

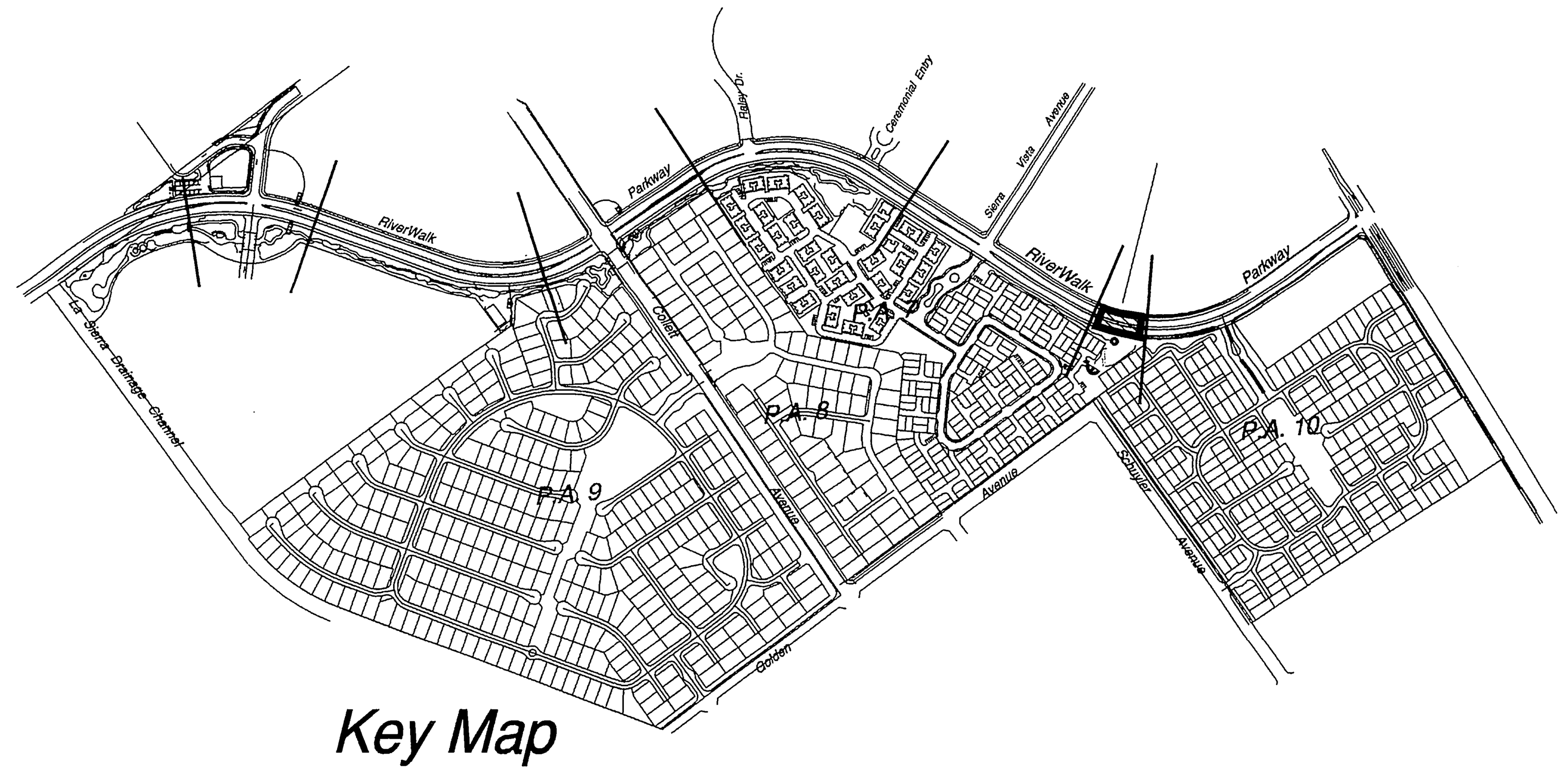
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/13/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

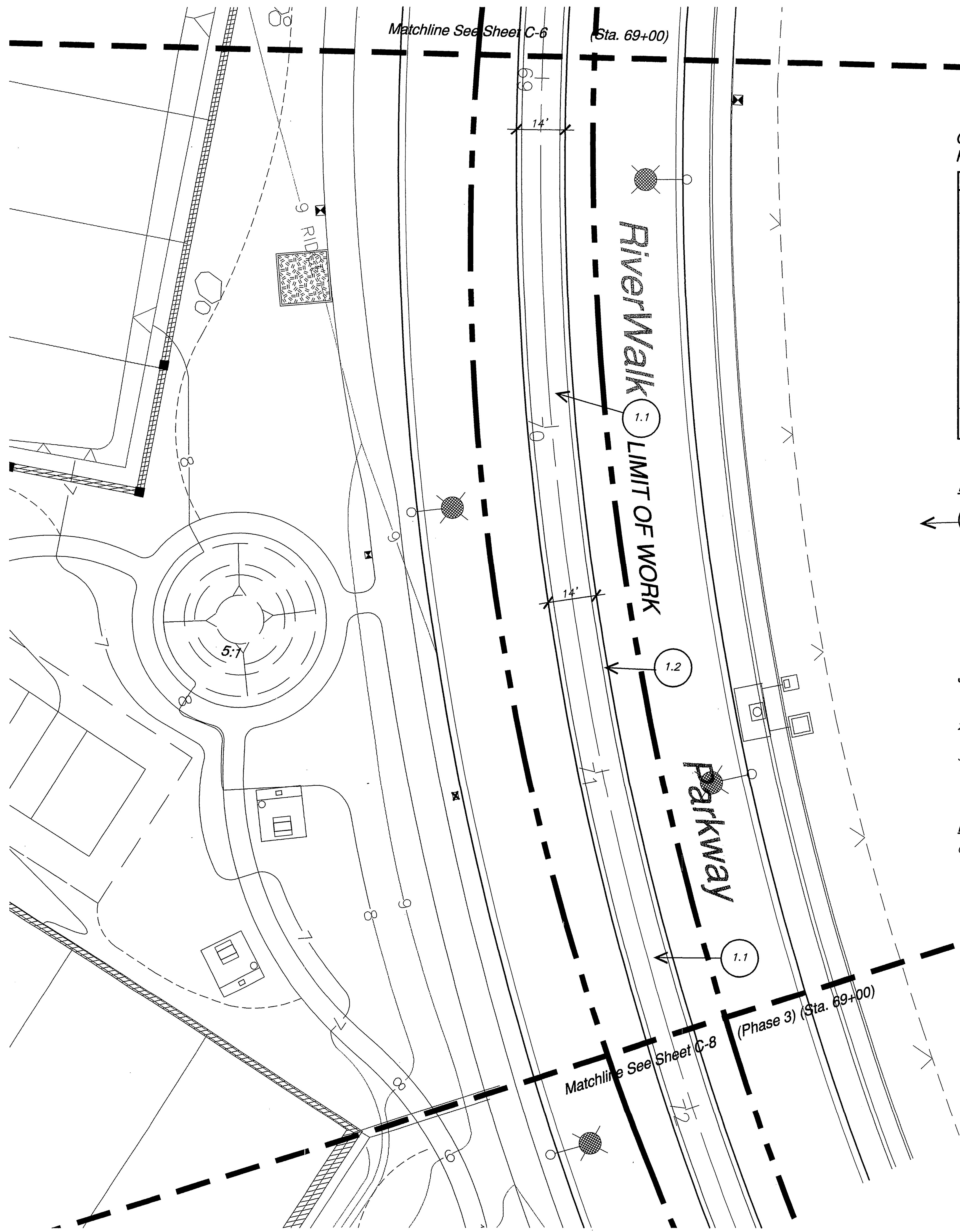
Construction Plan
Riverwalk Parkway Median
Sta. 58+00 - 69+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 7 OF 36
FILE NO.: C-6

RiverWalk Parkway Medians PC - 4268 -M2



Key Map
NTS



CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
1.2	Concrete Maintenance Strip	Natural grey concrete; light broom finish with 24" sq. scoring pattern as approved by Planning Department. Provide cold joint where strip is adjacent to curb on both sides. Provide cold joint adjacent to curb where strip is adjacent to planting on one side.	B, CD-1
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	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

Legend

○	Construction Callout
◐	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
P.O.B.	Point of Beginning
P.A.	Planting Area

Joint Notes:

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Detail Callout

CD-2/D
Detail Letter
Sheet Reference

0 10 20 40
SCALE: 1" = 20'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

Underground Service Alert
Call: TOLL FREE
1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No. 1976
Signature
3/5/02
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 20'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
⚠	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/15/2002
PLANNING DEPT.		3/5/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21/02

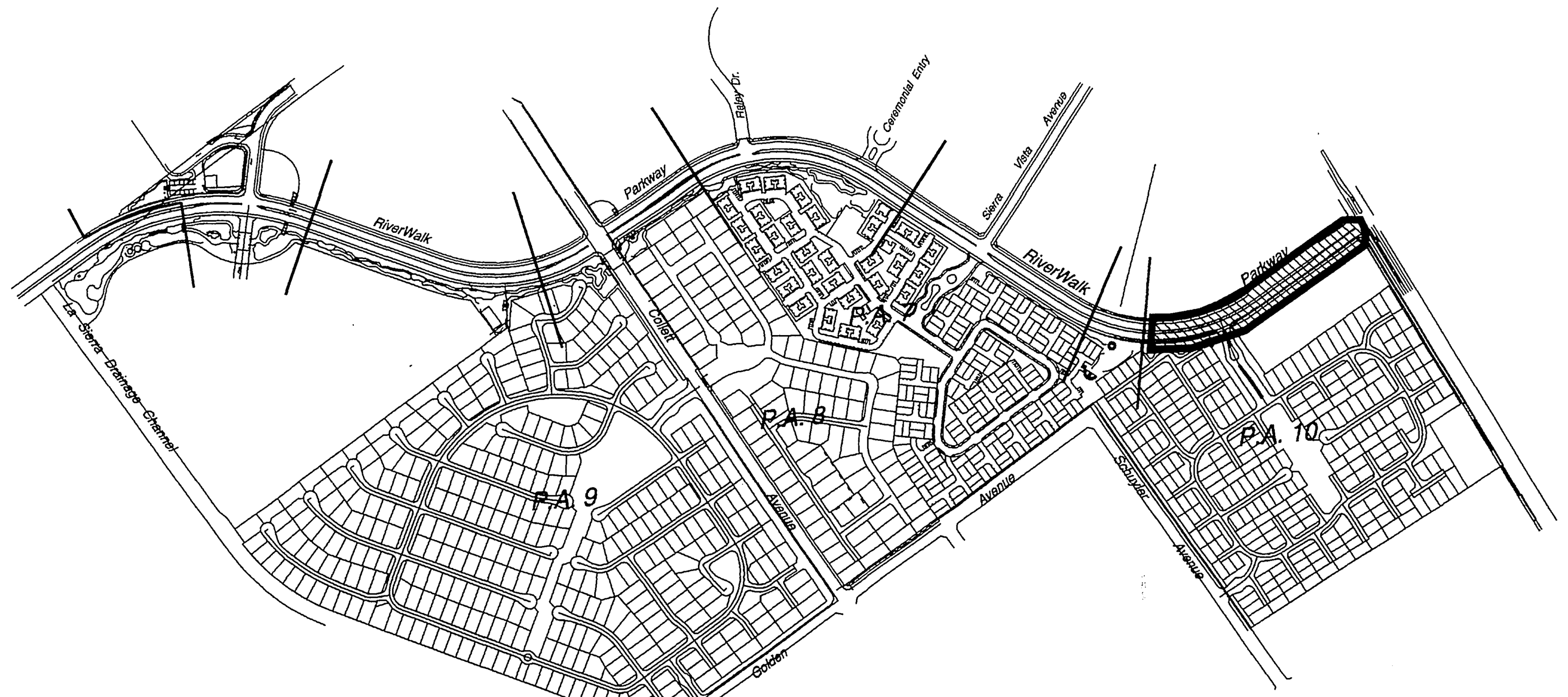
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Construction Plan

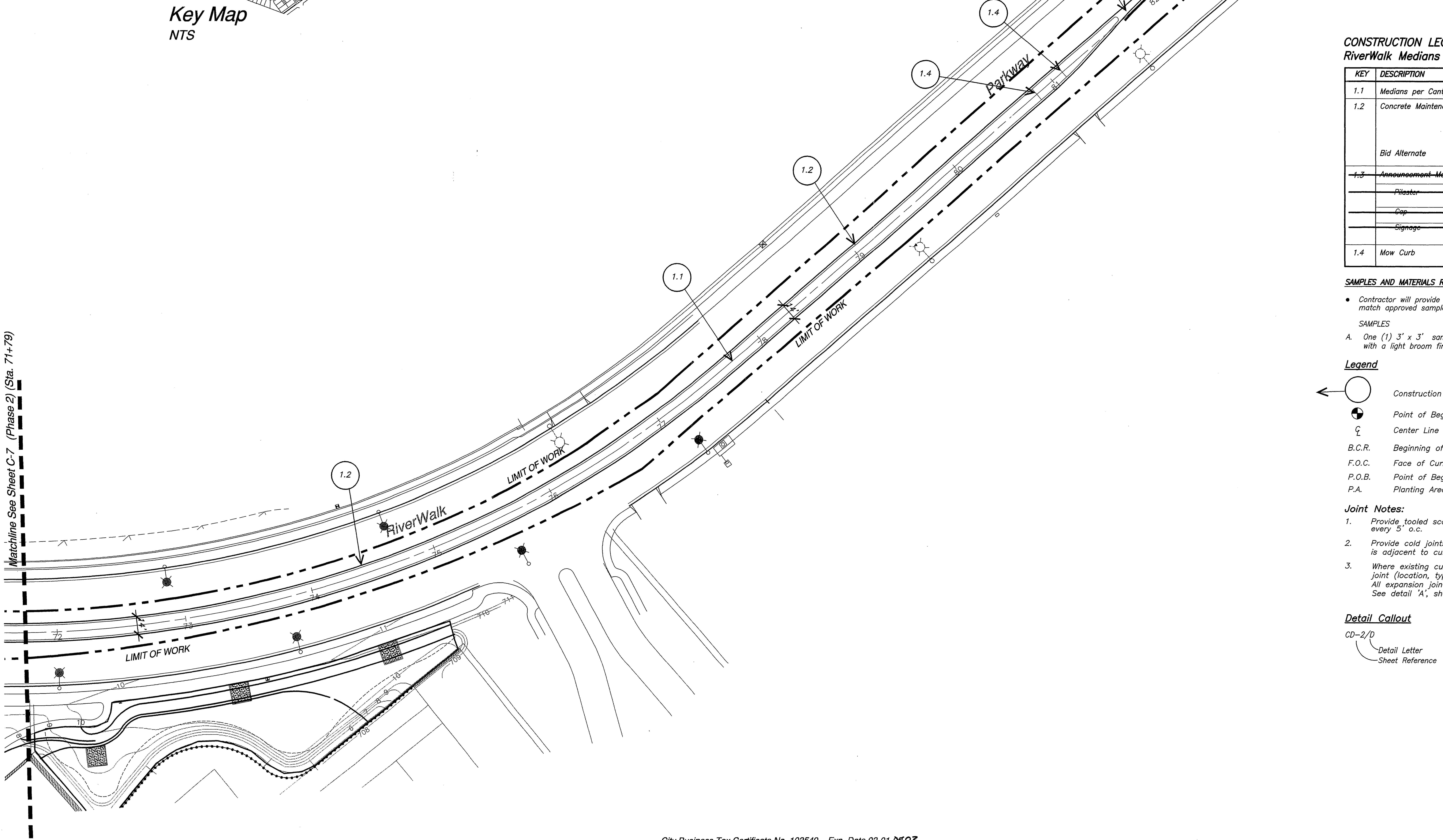
Riverwalk Parkway Median
Sta. 69+00 - 71+79

PROJECT NO. GI01-000
R-3561-ML
SHEET 8 OF 36
FILE NO.: C-7

RiverWalk Parkway Medians PC - 4268 -M2



Key Map
NTS



CONSTRUCTION LEGEND
RiverWalk Medians

KEY	DESCRIPTION	COLOR AND FINISH	DETAIL REF.
1.1	Medians per Canty Engineering		
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	~~Pilaster~~	~~CMU block; Red Mountain leaderstone veneer. Drystack mortarless look. See stone wall notes below.~~	~~Valley Building~~
	~~Cap~~	~~PIP natural grey concrete cap. Medium sandblast finish.~~	~~L.M. Scofield~~
	~~Signage~~	~~Per sign permit as approved by the City of Riverside Planning Department.~~	
1.4	Mow Curb	Natural grey color concrete. Light broom finish. Provide tooled score joint at midpoint.	D, CD-1

SAMPLES AND MATERIALS REQUIREMENTS:

- Contractor will provide the following samples or materials in the size and quantity noted. Contractor will match approved sample or remove and replace work at his own expense.

SAMPLES

A. One (1) 3' x 3' sample of intergral color #C-26 Antique Cork with a light broom finish.

Legend

(circle with arrow)	Construction Callout
(symbol)	Point of Beginning
℄	Center Line
B.C.R.	Beginning of Curb Radius
F.O.C.	Face of Curb
P.O.B.	Point of Beginning
P.A.	Planting Area

Joint Notes:

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Detail Callout

CD-2/D
Detail Letter
Sheet Reference

0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

Underground Service Alert
Call: TOLL FREE
1 – 800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Exp. 2/28/04 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ______

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
△	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	(initials)	3/19/02
PLANNING DEPT.		
PARKS DEPT.	(initials)	03/15/02
Dpty. P.W. Director		
STREET SERVICES	(initials)	3/21/02

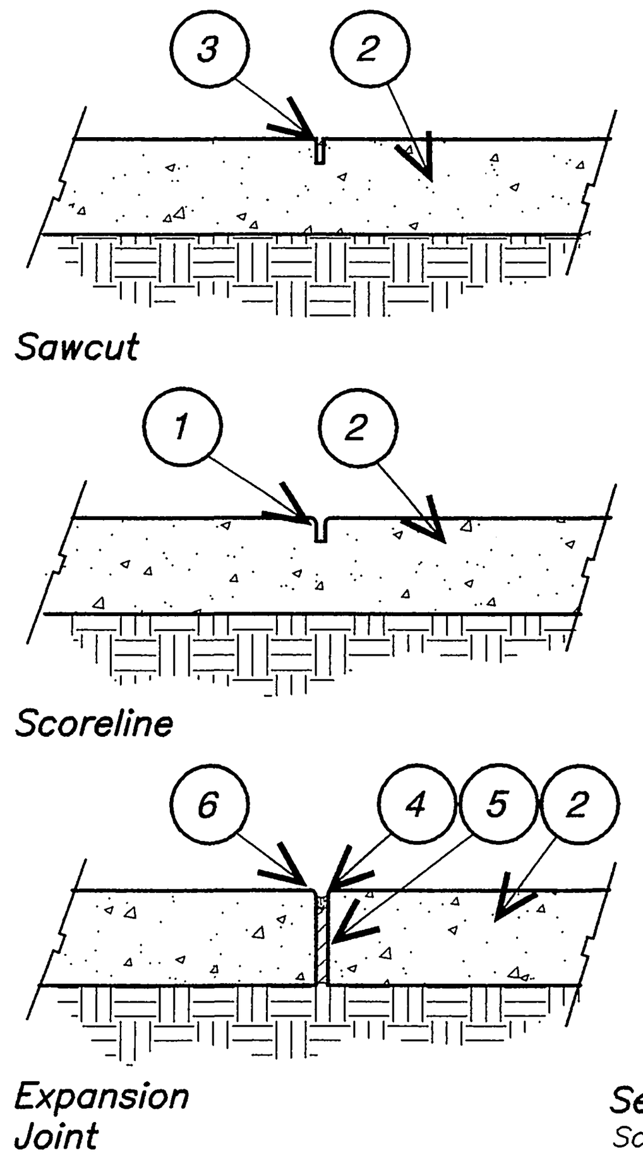
APPROVED BY (signature)
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Construction Plan

Riverwalk Parkway Medians
Sta. 71+79 - 84+05

PROJECT NO. GI01-000
R-3561-ML
SHEET 9 OF 36
FILE NO.: C-8

RiverWalk Parkway Medians PC - 4268 -M3



Notes:

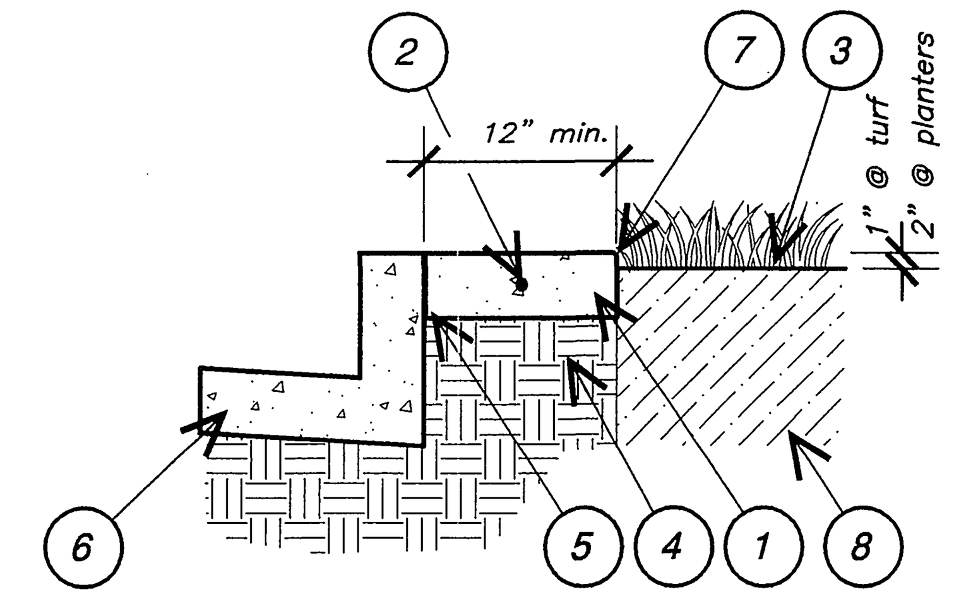
- *For sawcut, scoreline, and expansion joint distance refer to Construction Plan Legend.*

Section
Scale: 1 1/2"=1'-0"

Legend

1. 3/8" wide tooled scoreline, 1" deep, 1/8" radius at edges.
2. Concrete slab.Thickness and reinforcing per soils report.
3. 1/8" wide sawcut, 1" deep.
4. Sanded waterproof sealant. Color to match adjacent concrete paving.
5. 3/8" thick joint filler compatible with sealant.
6. 1/8" radius at edges.

(A) Concrete Joints



Typical Section
Scale: 1"=1'-0"

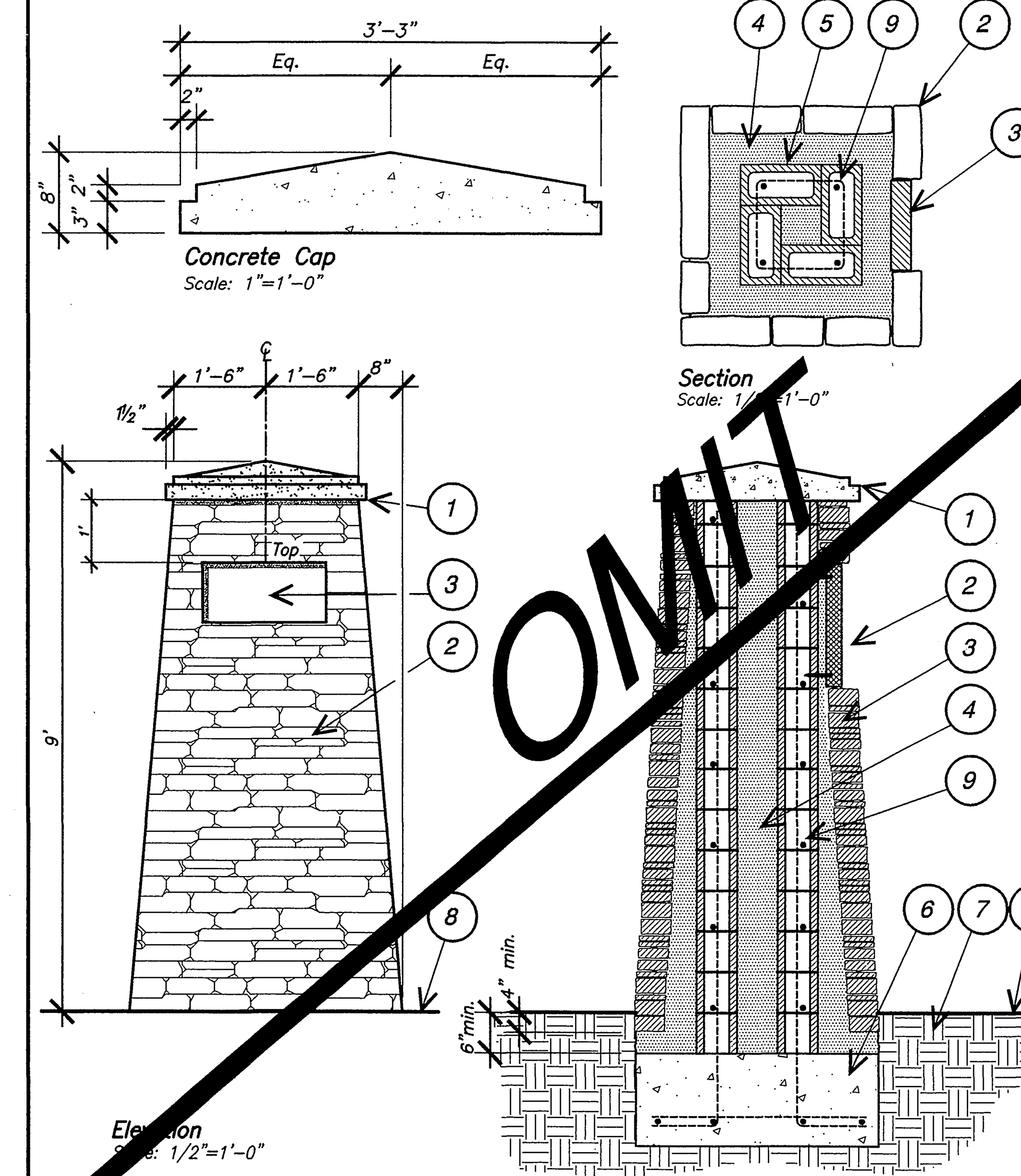
Legend

1. 4" thick concrete @ median island edges and ends. Concrete color and scoring as approved by City Planning Department (Width varies at ends of islands)
2. #4 continuous rebar, horizontal.
3. Finish grade.
4. 90% min. compacted soil to depth of 12" below subgrade elevation.
5. Cold joint.
6. Existing curb and gutter per approved Street Plans.
7. 1/4" radius at corners
8. Amended soil.

Notes:

A. Refer to Construction Plan for all types, colors, finishes and manufacturer application.

(B) Maintenance Strip

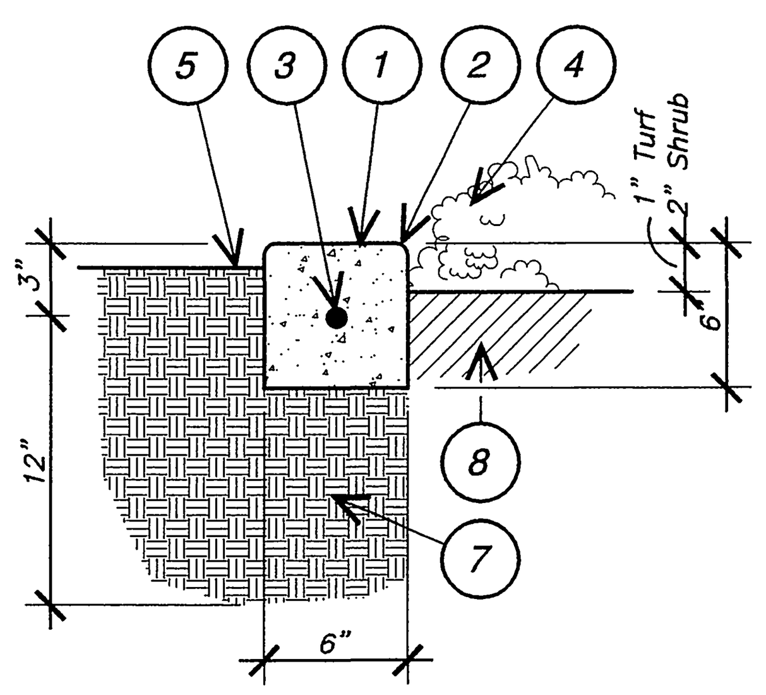


1. PIP concrete cap set in mortar.
2. Ledger stone veneer with mortarless appearance.
3. Project signage inset into stone.
4. Grout solid.
5. 16x8x8 CMU block, grout solid.
6. Concrete Footing per engineer.
7. 90% Compacted sub-grade.
8. Finish Grade.
9. Steel reinforcing per Engineer.

Refer to Structural Engineer's detail below for all footings, connections and reinforcing applications.

Section
Scale: 1/2"=1'-0"

(C) Announcement Monument



Section
Scale: 1 1/2"=1'-0"

Legend

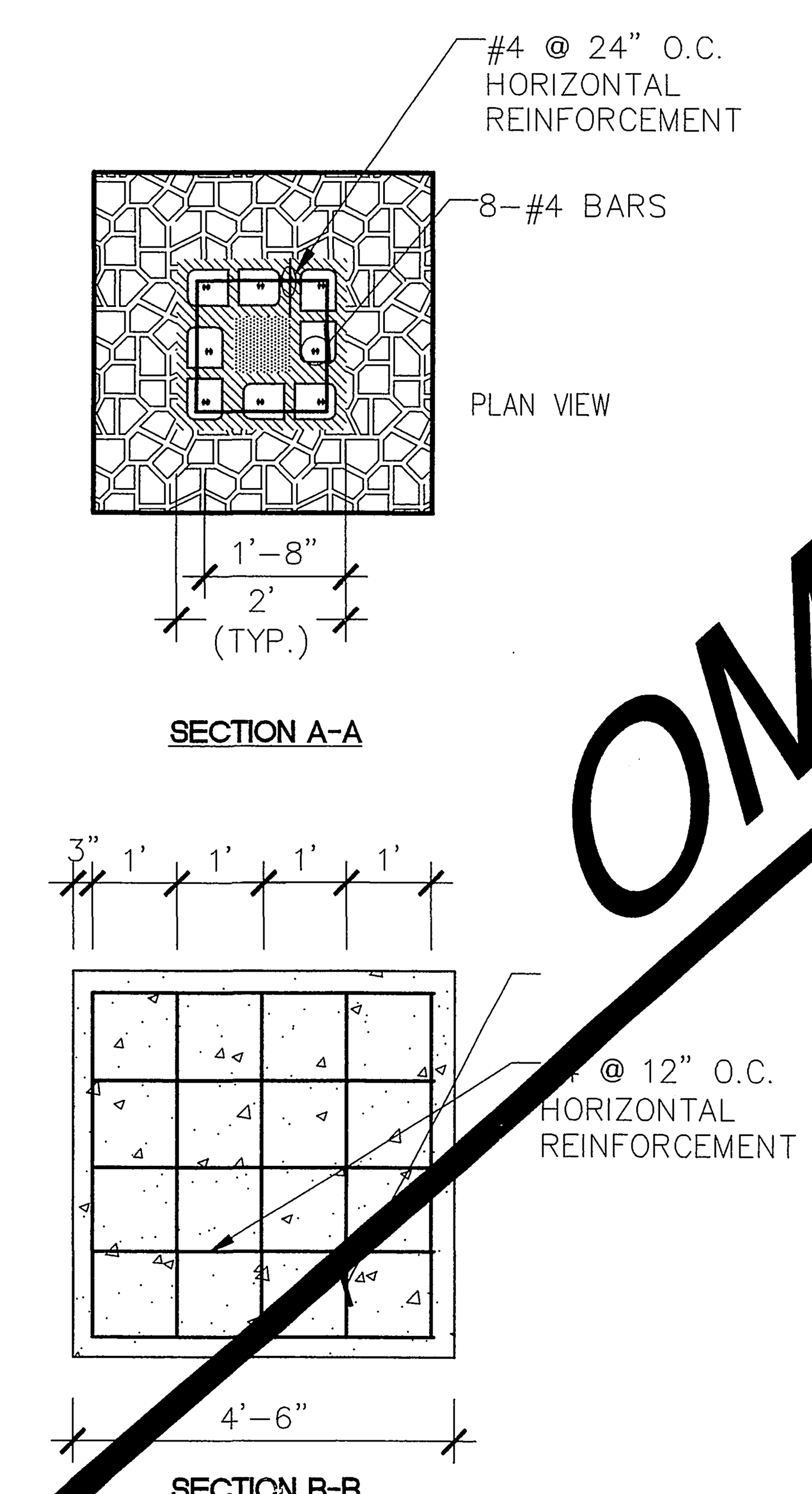
1. Concrete band. See construction legend for color and finish.
2. 1/4" radius at all corners.
3. No. 4 rebar, continuous. Minimum 2" clear.
4. Adjacent planting area. Allow 2" for shrub, 1" for turf planting and 1/4" for D.G. trail.
5. Turf area.
6. 90% min. compacted soil depth of 12" below sub-grade of decomposed granite.
7. 90% compacted sub-grade.
8. Amended soil.

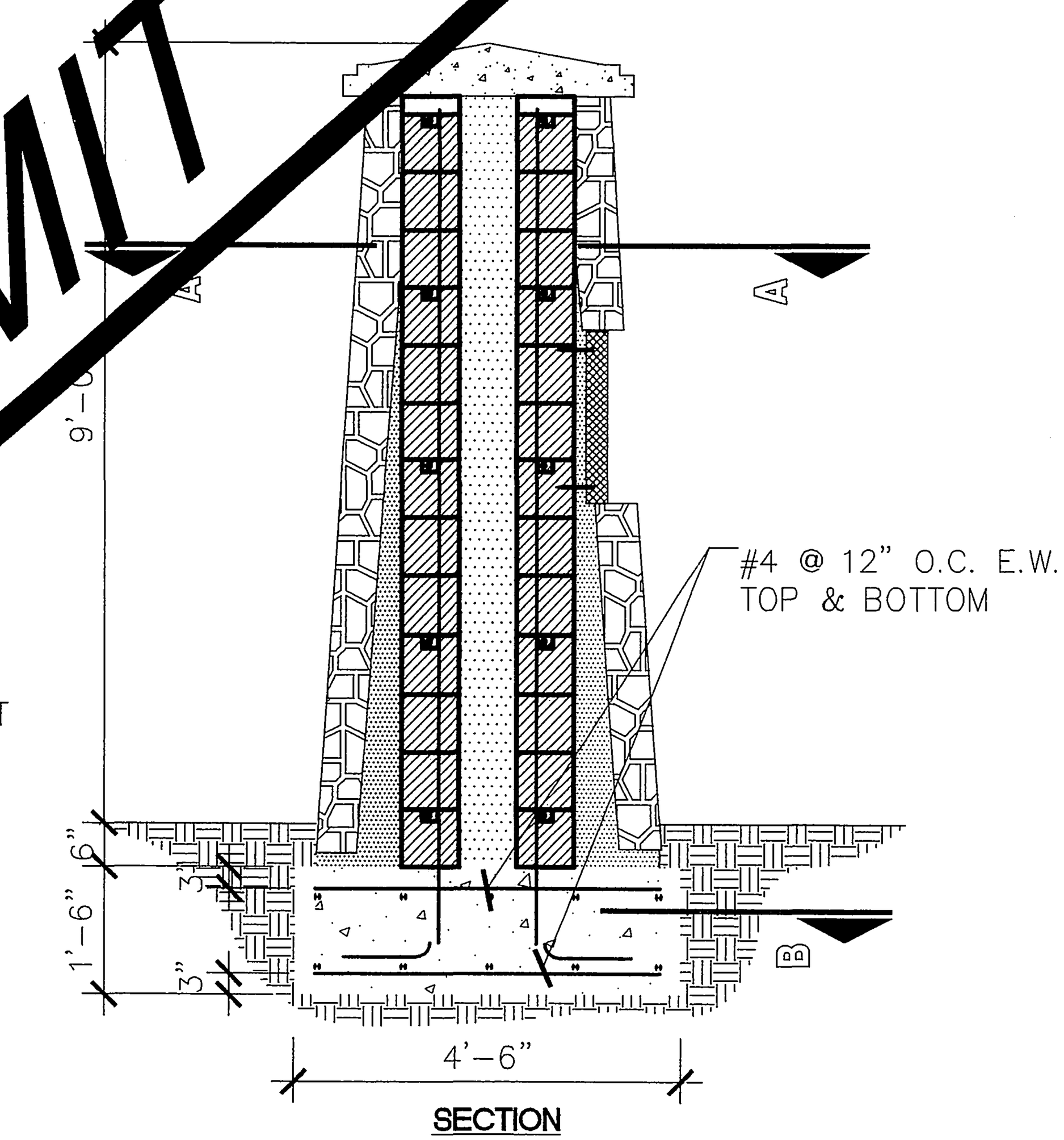
Notes
Refer to Construction Legend for types, colors, finishes, and manufacturers.

(D) Mow Curb

NOTES:

1. ALL STRUCTURAL STEEL SHALL BE GRADE
2. 60(Fs=24,000Fm)
   ALL CONCRETE SHALL HAVE A MINIMUM COMPRESS
3. STRENGTH OF 3,000 psi IN 28 DAYS.
   ALL MASONARY SHALL BE SOLID GROUT GRADE "N" (Fm=1500psi)
4. SEE LANDSCAPE ARCHITECT PLAN DETAIL AND COLUMN LOCATION.
5. PROVIDE MASONRY TIES FOR STONE VENEER. MASONRY TIES SHALL MEET ALL APPLICABLE CODES.





(E)

(F) Announcement Monument (Structural per Pace)

SCALE 1/2"=1'

City Business Tax Certificate No. 103549 Exp. Date 03-01-0203

Underground Service Alert
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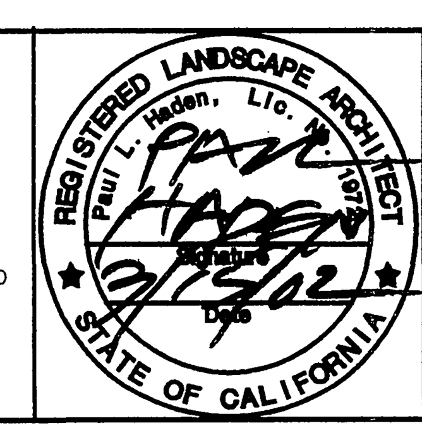
1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ________

Landscape Architecture
Urban Design
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Habitat Restoration

100 Avenida Miramar
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California 92672
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Fax 949.366.6626
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RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: As Shown
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY TCW CHECKED BY BC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		2002/3/15
Dpty. P.W. Director		
STREET SERVICES		3/21/02

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Construction Details
Riverwalk Parkway Median

PROJECT NO. GI01-000
R-3561-ML
SHEET 10 OF 36
FILE NO.: CD-1

RiverWalk Parkway Medians PC - 4268 -M

FINISH GRADING

PART 1 – GENERAL CONDITIONS

1.1 Description:

A. Work included:

1. Furnish all labor, materials, equipment, appliances and necessary incidentals for the complete installation of all landscape finish grading as shown on the drawings and as specified herein.

a. Preliminary Grading: Grades in all planting areas will be established to within +/– 1/10 foot by others prior to beginning of landscape construction. Raised and roof deck planting areas shall be backfilled with mixes indicated on plan and in specifications.

b. Weeding: Before and during finish grading, all weeds and grasses shall be dug out by the root and disposed of off the site.

c. Finish grading: Finish grading shall consist of finishing surfaces by raking smoothly and evenly, removing and disposing of all extraneous matter to facilitate natural run–off water. All extraneous matter shall be disposed of off the site.

d. Moisture Content: The soil shall not be worked when the moisture content is so great that excessive compaction will occur and not when it is so dry that a dust will form in the air or that clods will not break readily. Water shall be applied, if necessary, to provide ideal moisture content for tilling and for herein specified.

2. Visit the site to determine existing conditions, including access to the site and the nature and extent of existing improvements upon adjacent public and private property, nature of materials to be encountered and other factors that may affect the work of this section. Additional compensation resulting from the alleged ignorance of local conditions, and their effect upon the cost of the work will not subsequently be approved.

3. Cause minimum interference with workmen, materials, or other equipment of other trades on the project.

PART 2 – MATERIALS

2.1 No materials are required of this section.

PART 3 – EXECUTION

3.1 Surface Condition:

A. Prior to commencing work required by this section, inspect the work of other trades and verify that such work has been properly completed and installed to allow for proper installation of all materials and methods required of this section.

B. All landscape finish grading shall be installed in accordance with the requirements of all governing authorities, the original design and the referenced standards.

3.2 Finish Grading:

A. General: When preliminary grading and weeding has been completed and the soil has dried sufficiently to be readily worked, all lawn and planting areas shall be graded to the elevations indicated on the drawings. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations are given. Minor adjustments of finish grades shall be made at the direction of the Landscape Architect, if required. Finish grade shall be smooth, even and uniform plane with no abrupt change of surface. Soil areas adjacent to building shall slope away from the buildings to allow a natural run–off of water, and surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural run–off water. Low spots and pockets shall be graded to drain properly.

B. Shrubs and Ground Cover: The finish grade of all shrubbery and ground cover areas shall be 1–1/2 inches below the grade of adjacent pavement, walks, curbs or headers and 3 inches below adjacent walls. An exception to the above requirements shall be made wherever drainage conditions may require flush grades as directed by the Landscape Architect.

C. Lawn Areas: The finish grade of all lawn areas shall be 1–1/2 inches below the grade of adjacent pavement, walks, curbs or headers. An exception to the above requirements shall be made wherever drainage conditions may require flush grades as directed by the Landscape Architect.

D. Drainage: Contractor is to finish grade with proper slope to drains. All flow lines, designated or not, shall be graded and maintained to allow free flow of surface water, and shall conform to the intent of all plans and sections after thorough settlement and compaction of the soil.

3.3 Inspections: All inspections herein specified shall be made by the Architect. Request inspections at least 24 hours in advance of the time inspection is desired. Inspection is required when finish grading is completed.

END

DRAINAGE

PART 1 – GENERAL CONDITIONS

1.1 Description:

A. Work included:

1. Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all drainage systems as shown on the drawings including but not limited to the following:

a. Installation of all brass, ABS and PVC drainage structures.

b. Installation of all drain lines and other necessary equipment as intent of plans.

PART 2 – MATERIALS

2.1 Acrylonitrile Butadiene–Styrene (ABS) Schedule 40 plastic drain pipe, perforated or non–perforated in diameters shown on drawings.

2.2 Basins and Drains: High impact plastic styrene drain basins, catch basins, and grates, high impact plastic styrene deck drains and/or precast concrete drain box and catch basins and cast iron grate and/or brass basin and grate in diameters, sizes and types shown on drawings.

2.3 Fittings: Snap couplings, snap tees, ells, Y, and receiver couplings as necessary to connect all pipe, drains and fittings as shown or inferred on drawings.

PART 3 – EXECUTION

3.1 Trenching and Pipe Laying:

A. Trenches to pitch a minimum of 1/4" per foot unless otherwise indicated on drawings. Contractor to verify all invert elevations and trench depth prior to excavation.

B. Bottom of trench shall be smooth and continuous to flow direction. A hollow shall be made to receive bell of pipe so that the joint will not bear upon the subgrade. Adjustments to line and grade shall be made by scraping away or filling in with backfill under the base of the pipe and not by wedging or blocking.

C. Trench material shall be used for backfill. However, no rocks or lumps shall be used. Welded joints shall be given at least 15 minutes setup before handling. Above the level of initial backfill, the trench may be backfilled with trench material.

D. Compaction: Compaction by tamping shall be done in layers not exceeding eight (8") inches in loose depth. Each layer shall be thoroughly compacted before proceeding with work.

3.2 Cleanup and Testing:

A. Prior to covering of trenches, drain line and basins shall be checked to insure proper flow and water tightness.

B. The piping systems shall be flushed and cleaned prior to connecting to existing drain line, catch basin or storm drain systems.

C. Upon completion of work, remove debris, tools, and surplus materials from site.

3.3 Inspection: The following inspection shall be made by the Landscape Architect: When drainage work is completed, request inspection at least 24 hours in advance of the time the inspection is desired.

END

SITE CONCRETE

PART 1 – GENERAL CONDITIONS

1.1 Description:

A. Work Included:

1. Furnish all labor, materials, equipment, appliances, and necessary incidentals for the complete installation of all concrete per the drawings.
2. Install decorative concrete paving with finish and integral color as approved by the Planning Department.

1.3 Submittals:

A. Samples of color and texture shall be submitted to Landscape Architect and City of Riverside Planning Department for approval.

B. Prepare 5' x 5' panel of each type of paving using mix, materials and workmanship proposed for actual work.

1.4 Product Protection, Storage and Handling:

A. Protection: Take all precautions necessary to protect the materials of this section before, during, and after installation.

B. Replacements: In the event of damage, immediately repair all damaged and defective work to the approval of the Landscape Architect, at no additional cost to the owner.

PART 2 – MATERIALS

2.1 Cement shall be Portland Cement Type II, conforming to ASTM designation C–150. Maximum total alkali shall not exceed 0.6%. Single brand throughout project.

2.2 Aggregates shall conform to ASTM designation C–33, 3/4" maximum size. Fine, natural sand, well graded, shall conform to ASTM C–144. Expansion joints shall conform to ASTM designation D–1751, size, height and location as noted on the drawings. Joints shall be impregnated felt unless otherwise specified on drawings.

2.3 Water used shall be potable quality, clean and free of deleterious material.

2.4 Reinforcing steel shall be intermediate grade deformed bars conforming to ASTM A–615, Grade 40, free of any coating that would prevent proper bond. Welded wire mesh shall conform to ASTM A–185. All steel shall be supported by chairs, spacers and hangers, and wired at intersections. Sizes shall be as shown on drawings.

2.5 Concrete mix shall be (unless indicated otherwise) a 5–sack Portland Cement mix, 3/4 inch maximum size aggregate with maximum 5" slump, designed for 2500 psi at 28 days.

2.6 Joint sealant shall be two–part polysulfide Class A self–leveling sealant as manufactured by Thiokol, or multi–part polyurethane construction sealant by L. M. Scofield. Color as selected by Landscape Architect.

2.7 Curing materials for walks shall be Thompson's C & B curing and bond breaker compound, product of E. A. Thompson Co., Inc. or approved equal water sealer.

PART 3 – EXECUTION

3.1 Subgrade:

A. Grade all subgrades to a uniform depth and compact to 95% minimum compaction. Moisten all subgrades prior to pouring of concrete.

B. Cut all footings in undisturbed or compacted soil. Footings shall be dead level.

C. Place and compact sand or aggregate base as shown in the drawings.

3.2 Forms:

A. Use only finished lumber. Set all forms to conform to plans and details and as directed. All edges and lines shall be truly vertical, horizontal or curved as shown on drawings.

B. Moisten all forms prior to placing of concrete.

3.3 Expansion Joints:

A. Where existing curb provides expansion joint, provide matching expansion joint (location, type and size) tranversing maintenance strip.

B. Provide cold joints where new work adjoins existing work on both sides of median.

C. Place 1" deep, tooled score joints at 5' o.c. where not indicated.

D. All joints shall be accurately aligned, of sharp, even width.

3.4 Concrete Installation:

A. Class A concrete shall contain not less than 5 sacks of cement per cubic yard and be proportioned to attain a minimum cylinder strength of 2,500 psi in 28 days. Compressive strengths are to be determined in accordance with ASTM C–39. The slump shall not exceed 4".

B. All transit mixed concrete shall be mixed and delivered in accordance with the requirement of the Standard Specifications for ready–mixed concrete, ASTM C–94.

C. Where paving or steps adjoin existing elements, grades shall match exactly unless otherwise shown on plans. Concrete shall be finished to true, even lines and surfaces and left free from defects. Maximum variation permitted shall be 1/8 inch out of line or level in 10 feet. Joints and edges shall be straight and true and finished with jointing and edging tools.

D. Curing: All newly placed concrete shall be kept wet by continuous application of water for the first seven days after concrete has been placed.

3.5 Concrete Finish:

A. Light Broom Finish: Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface, steel trowel and edge to an even hard surface. Using new manila hemp bristle broom, brush markings on slabs in uniform fashion as shown on drawings. Construct 6" steel trowel shiner around edges as shown on plans.

END

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1977 — Signature — 3/15/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
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www.thecollaborativewest.com
TheCollaborativeWest

SCALE: None
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
⚠	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY TCW CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

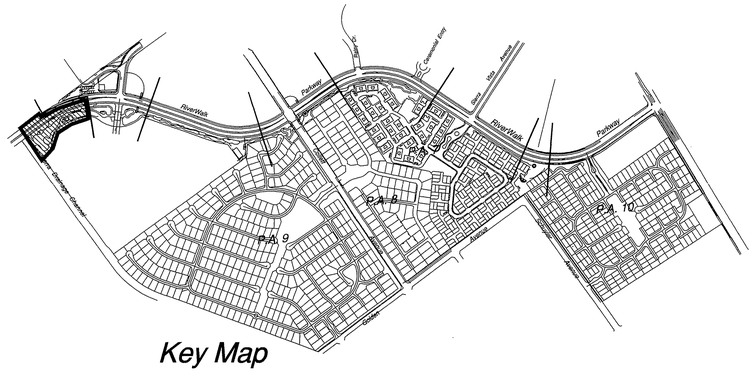
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		3/21/02

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Construction Specifications
Riverwalk Parkway Median

PROJECT NO. GI01-000
R-3561-ML
SHEET 11 OF 36
FILE NO.: CS-1

RiverWalk Parkway Medians PC - 4268 -M



Key Map
NTS

IRRIG. WATER STUB-OUT 'M' CRITERIA:

Domestic Water Meter:	2"
Water Meter Number:	---
Water Meter Address:	---
Street Station:	12+5
Maximum Demand in GPM	43.0gpm
Maximum available pressure:	75.0 psi
Required System Pressure:	45.0 psi

SPECIAL INSTALLATION NOTES:

IRRIGATION MAIN LINE PIPE, VALVES, QUICK COUPLERS, AND OTHER RELATED APPURTENANCES ARE DIAGRAMMATIC. INSTALL THE IRRIGATION MAIN LINE PIPE AT A CONSTANT DISTANCE OF 24" FROM BACK OF CURB.

THE CONTRACTOR SHALL STAKE THE MAIN LINE ROUTING AND OBTAIN A WRITTEN APPROVAL FROM THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO TRENCHING OPERATIONS.

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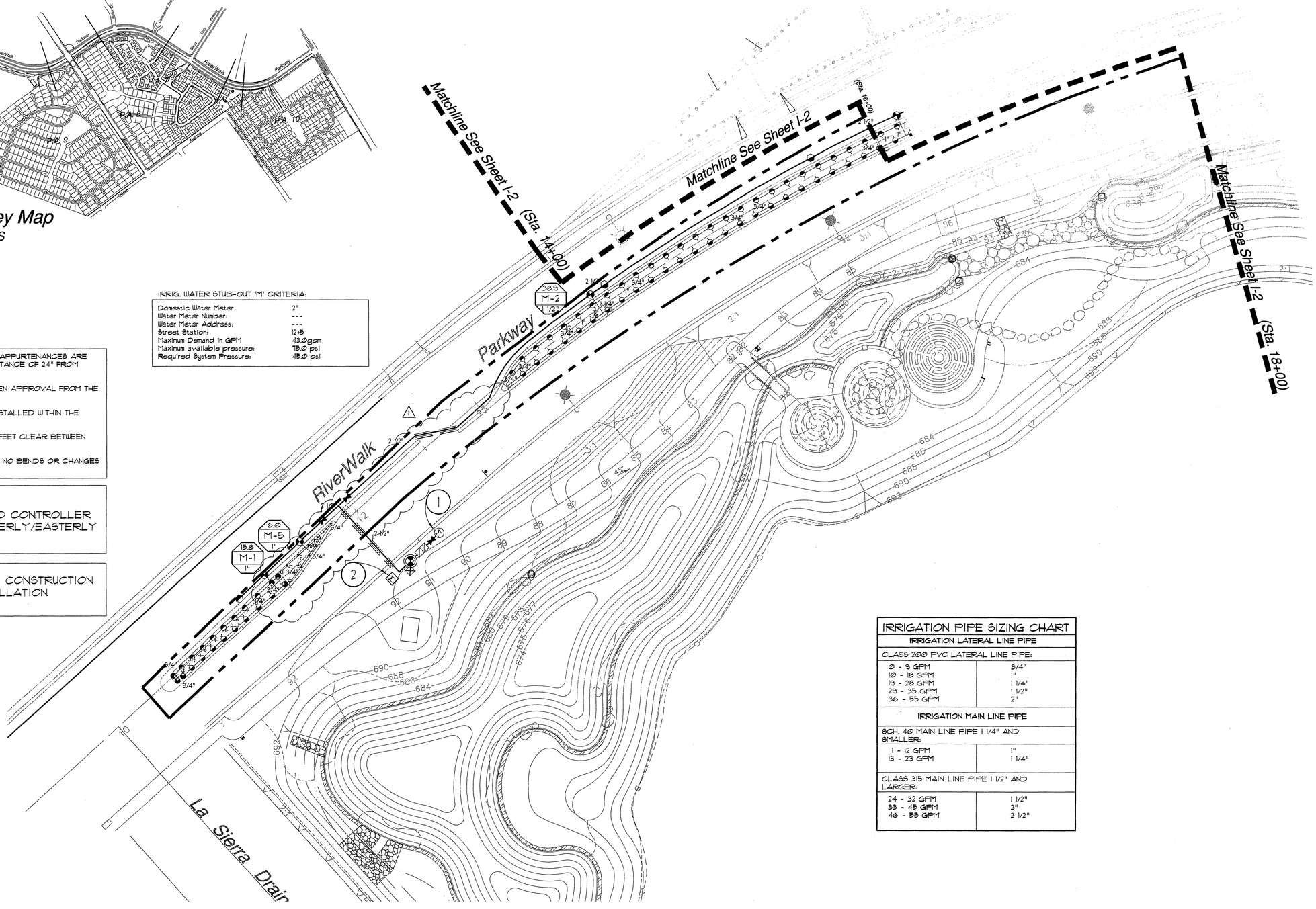
REFER TO SHEET 'IL-1' FOR IRRIGATION LEGEND AND CONSTRUCTION NOTES, SHEET 'ID-1 AND ID-2' FOR IRRIGATION INSTALLATION DETAILS.



IRRIGATION PIPE SIZING CHART	
IRRIGATION LATERAL LINE PIPE	
CLASS 200 PVC LATERAL LINE PIPE:	
0 - 9 GPM	3/4"
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46 - 55 GPM	2 1/2"

0 15 30 60
SCALE: 1" = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-02

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REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No. 3572
Signature
Exp. 2/28/04
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

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San Clemente
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SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	Turn Lane Revision per Client Request		03/21/02

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY xx

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE

Irrigation Plan
Riverwalk Parkway Median
Sta. 10+00 - 16+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 12 OF 36
FILE NO.: I-1

RiverWalk Parkway Medians PC - 4268 -M3

Key Map
NTS

SPECIAL INSTALLATION NOTES:

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REFER TO SHEET 'IL-1' FOR IRRIGATION LEGEND AND CONSTRUCTION NOTES, SHEET 'ID-1 AND ID-2' FOR IRRIGATION INSTALLATION DETAILS.

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Date 3/5/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
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SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

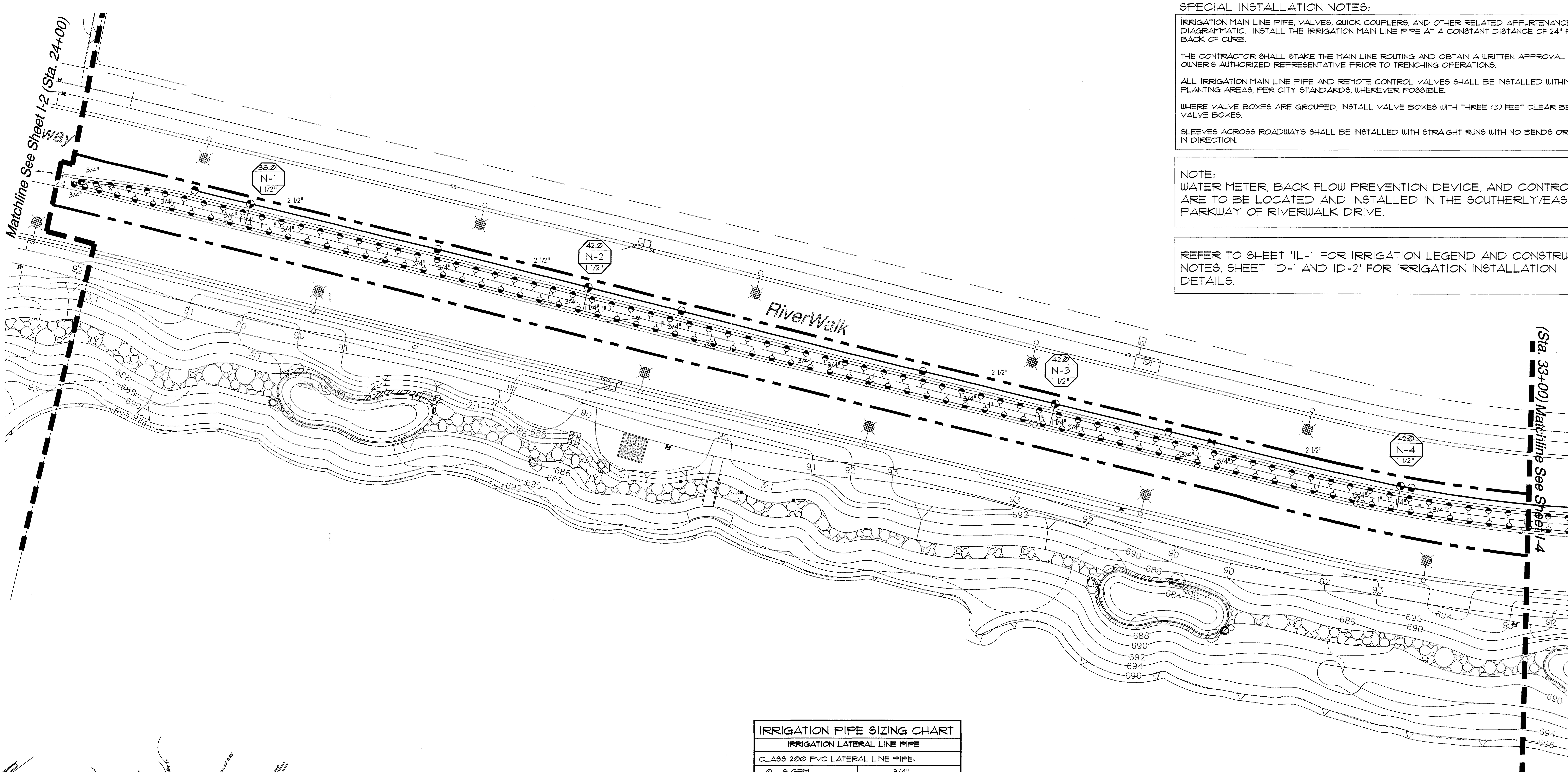
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		03.15.02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan
Riverwalk Parkway Median
Sta. 16+00 - 24+00

PROJECT NO. *GI01-000*
R-3561-ML
SHEET 13 OF 36
FILE NO.: *I-2*

RiverWalk Parkway Medians PC - 4268 -MI



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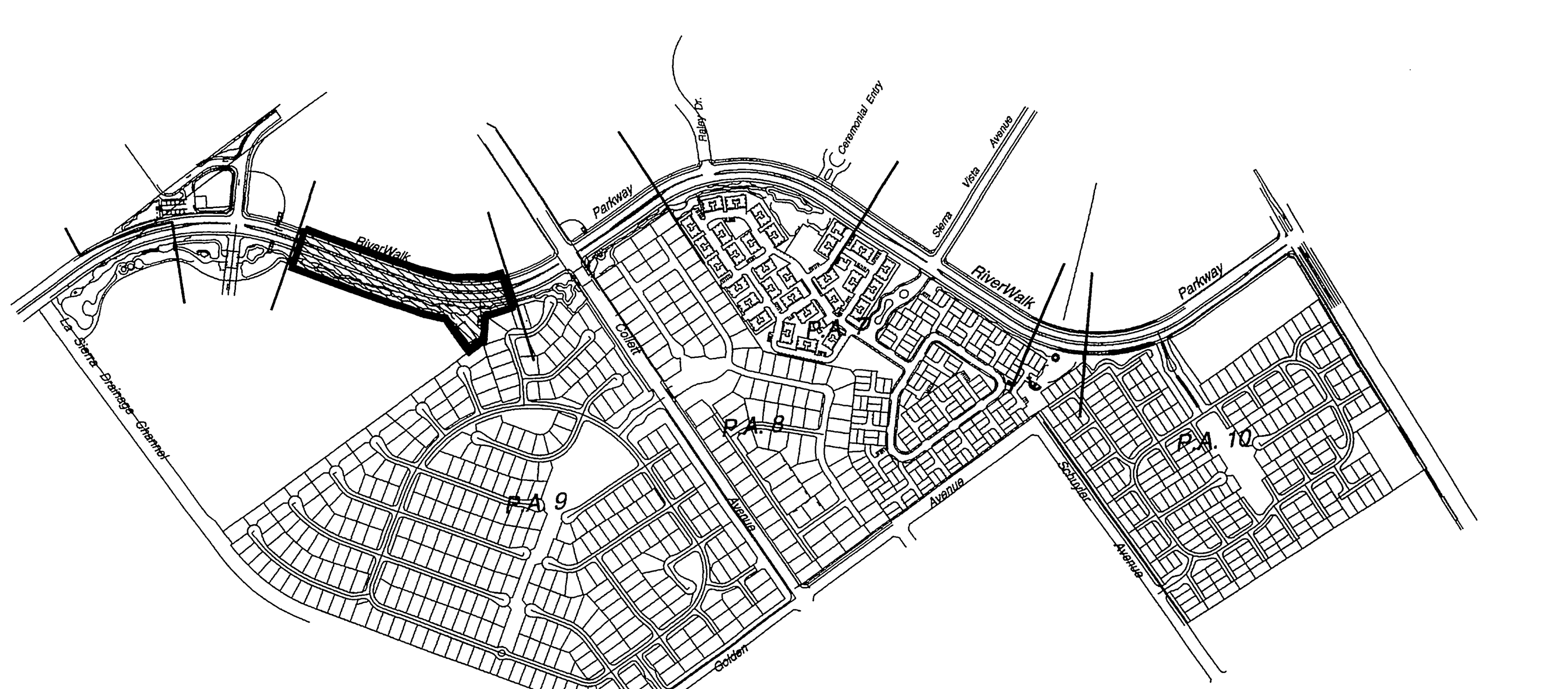

Key Map
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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1978 — Signature — Date 3/7/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration

100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com

TheCollaborativeWest

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

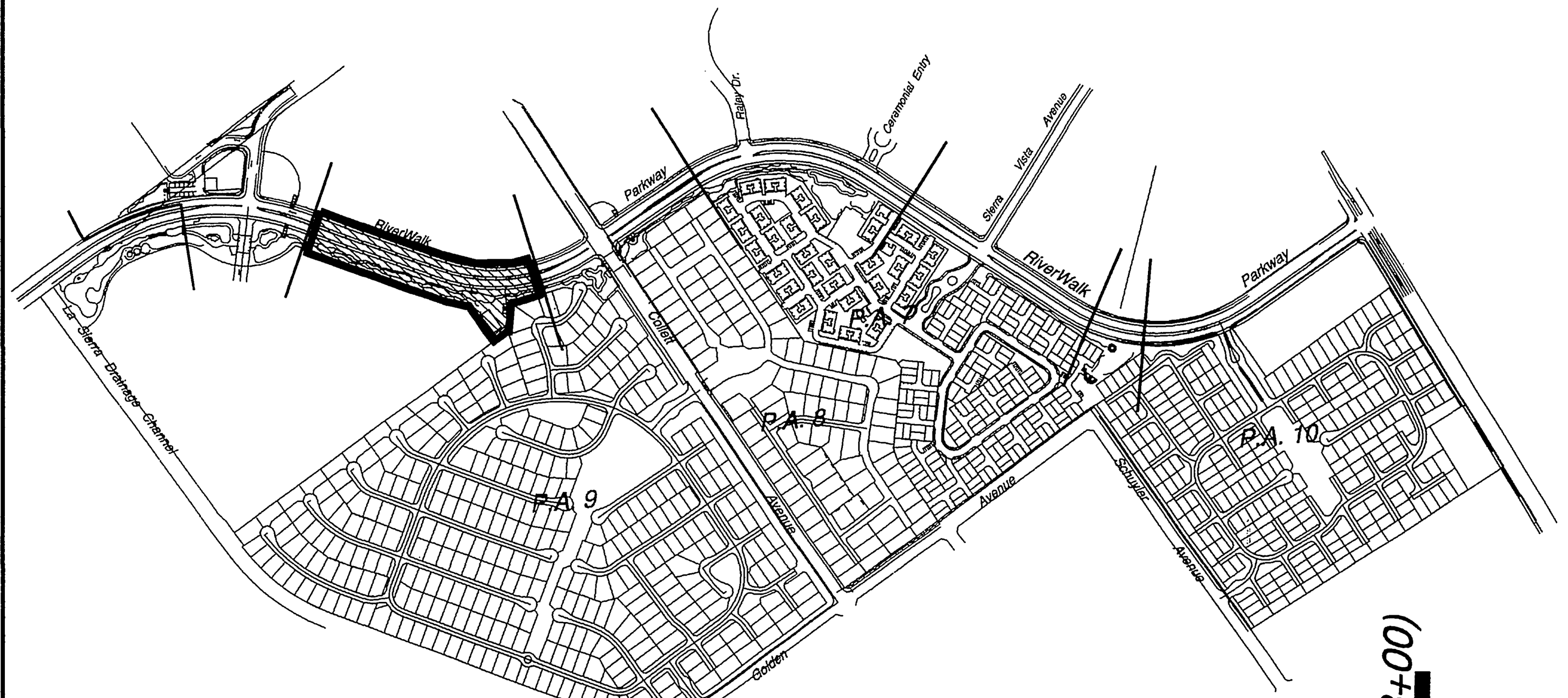
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan

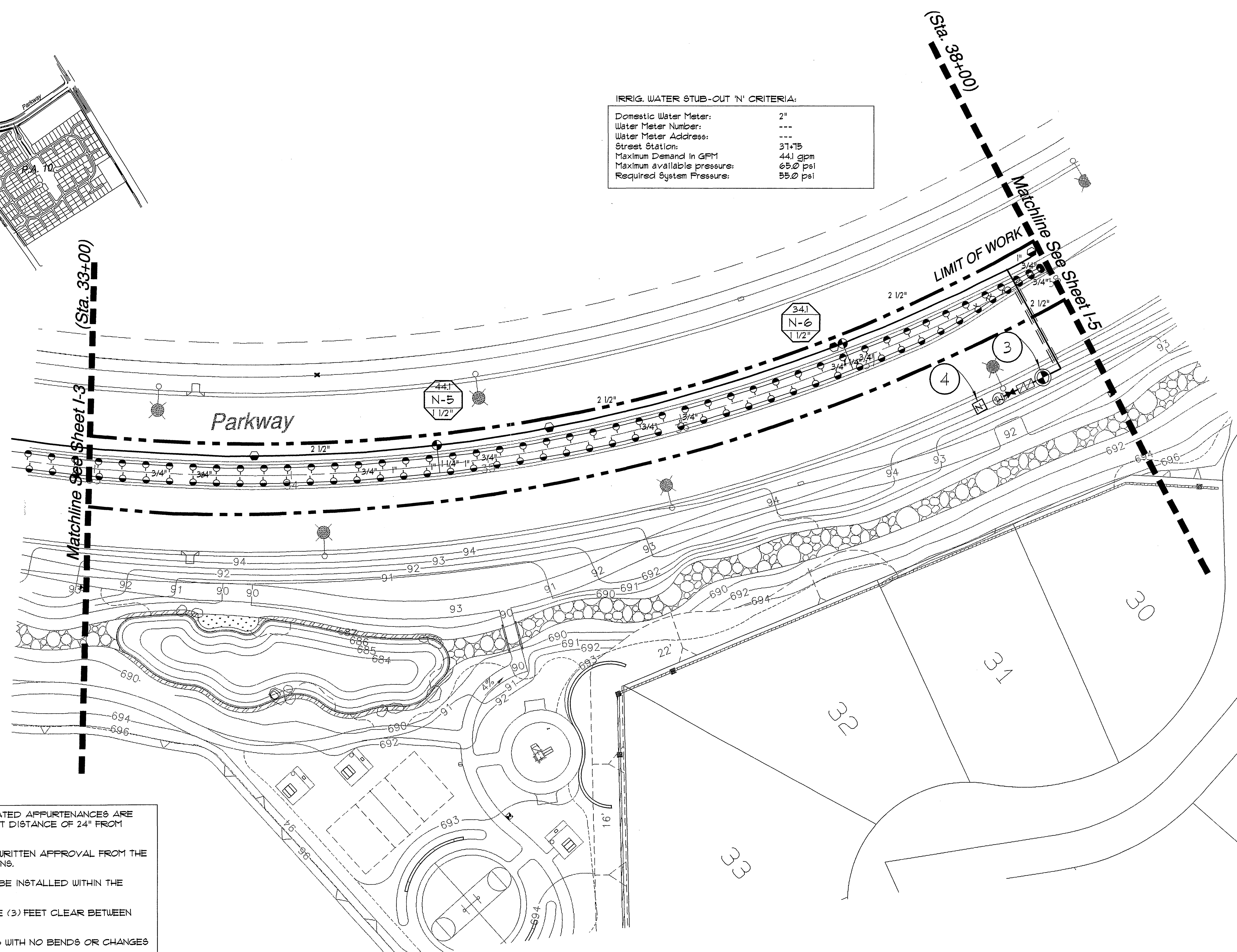
Riverwalk Parkway Median
Sta. 24+00 - 33+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 14 OF 36
FILE NO.: I-3

RiverWalk Parkway Medians PC - 4268 -M1



Key Map
NTS



IRRIG. WATER STUB-OUT 'N' CRITERIA:

Domestic Water Meter:	2"
Water Meter Number:	---
Water Meter Address:	---
Street Station:	37+75
Maximum Demand in GPM	44.1 gpm
Maximum available pressure:	65.0 psi
Required System Pressure:	55.0 psi

SPECIAL INSTALLATION NOTES:

IRRIGATION MAIN LINE PIPE, VALVES, QUICK COUPLERS, AND OTHER RELATED APPURTENANCES ARE DIAGRAMMATIC. INSTALL THE IRRIGATION MAIN LINE PIPE AT A CONSTANT DISTANCE OF 24" FROM BACK OF CURB.

THE CONTRACTOR SHALL STAKE THE MAIN LINE ROUTING AND OBTAIN A WRITTEN APPROVAL FROM THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO TRENCHING OPERATIONS.

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SLEEVES ACROSS ROADWAYS SHALL BE INSTALLED WITH STRAIGHT RUNS WITH NO BENDS OR CHANGES IN DIRECTION.

NOTE:
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REFER TO SHEET 'IL-1' FOR IRRIGATION LEGEND AND CONSTRUCTION NOTES, SHEET 'ID-1 AND ID-2' FOR IRRIGATION INSTALLATION DETAILS.

IRRIGATION PIPE SIZING CHART	
IRRIGATION LATERAL LINE PIPE	
CLASS 200 PVC LATERAL LINE PIPE:	
0 - 9 GPM	3/4"
10 - 18 GPM	1"
19 - 28 GPM	1 1/4"
29 - 35 GPM	1 1/2"
36 - 55 GPM	2"
IRRIGATION MAIN LINE PIPE	
SCH. 40 MAIN LINE PIPE 1 1/4" AND SMALLER:	
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0 15 30 60
SCALE: 1' = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
Call: TOLL FREE
1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Date 3/15/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration

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SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	[signature]	3/19/02
PLANNING DEPT.	[signature]	3/15/02
PARKS DEPT.	[signature]	3/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan

Riverwalk Parkway Median
Sta. 33+00 - 38+00

PROJECT NO. GI01-000

R-3561-ML

SHEET 15 OF 36

FILE NO.: I-4

RiverWalk Parkway Medians PC - 4268 -MI

SPECIAL INSTALLATION NOTES:

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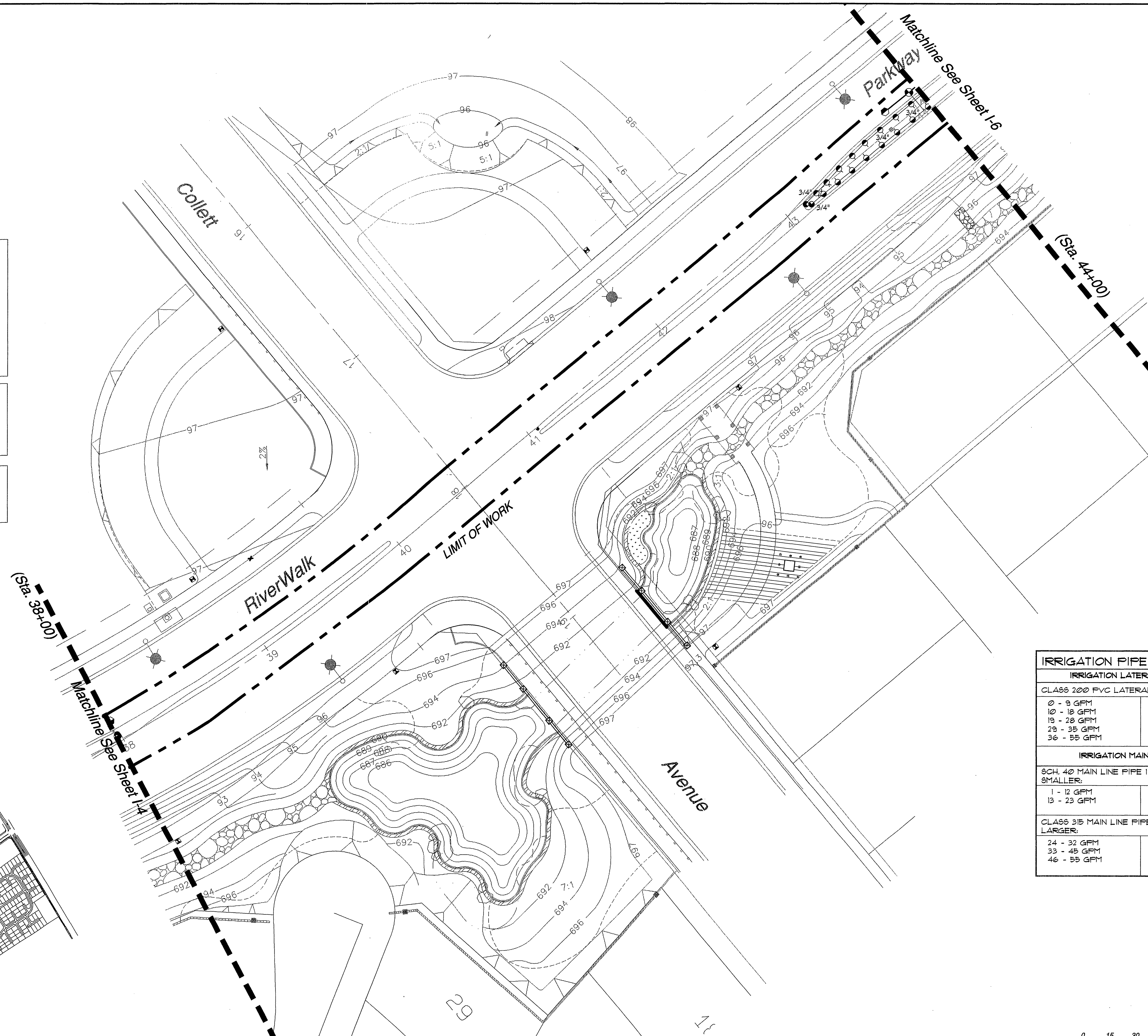
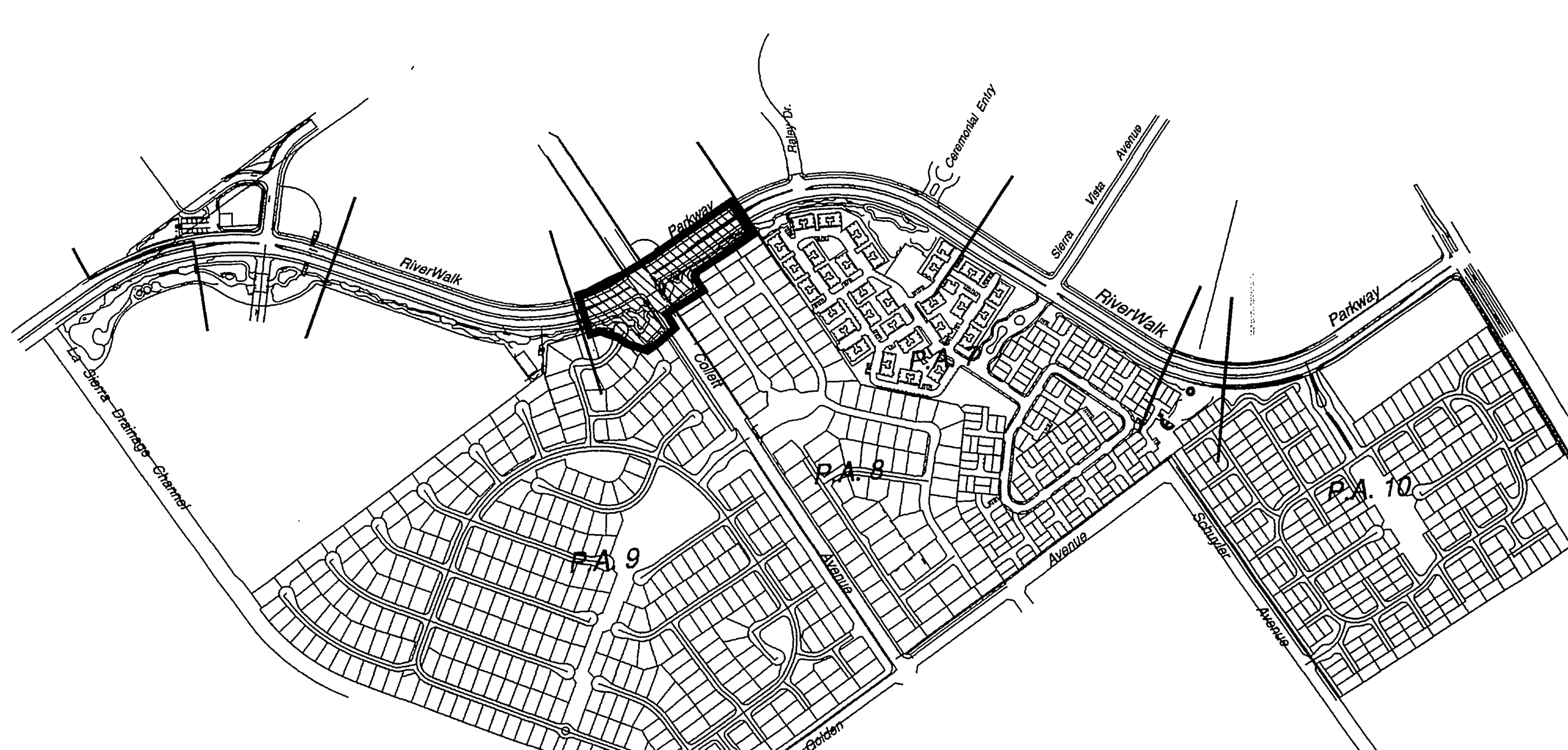


IRRIGATION PIPE SIZING CHART	
IRRIGATION LATERAL LINE PIPE	
CLASS 200 PVC LATERAL LINE PIPE:	
0 - 9 GPM 10 - 18 GPM 19 - 28 GPM 29 - 35 GPM 36 - 55 GPM	3/4" 1" 1 1/4" 1 1/2" 2"
IRRIGATION MAIN LINE PIPE	
SCH. 40 MAIN LINE PIPE 1 1/4" AND SMALLER:	
1 - 12 GPM 13 - 23 GPM	1" 1 1/4"
CLASS 315 MAIN LINE PIPE 1 1/2" AND LARGER:	
24 - 32 GPM 33 - 45 GPM 46 - 55 GPM	1 1/2" 2" 2 1/2"



Key Map
NTS

0 15 30 60
SCALE: 1' = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

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REGISTERED LANDSCAPE ARCHITECT Paul L. Haden, Lic. No. 1978 Signature Date STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

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RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

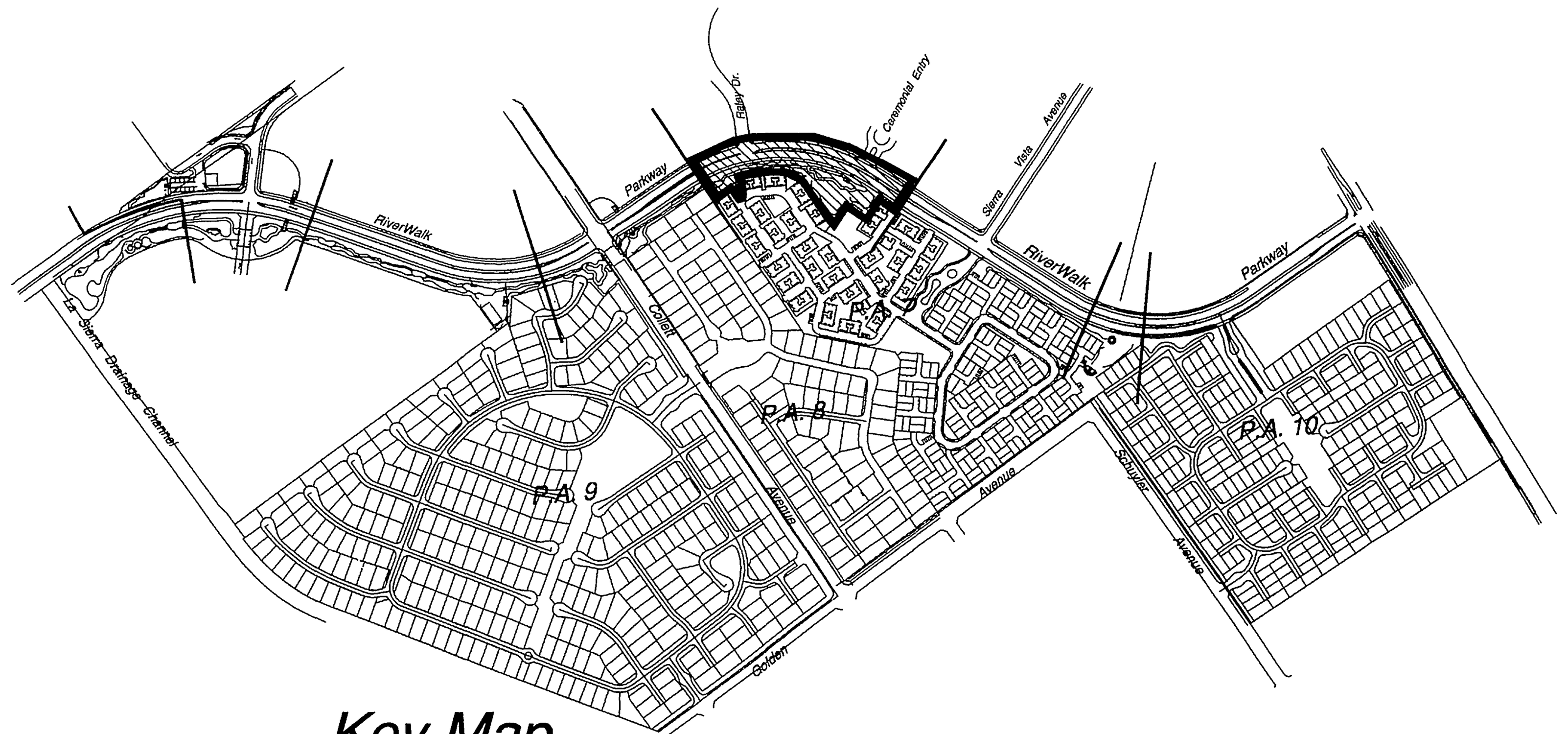
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan
Riverwalk Parkway Median
Sta. 38+00 - 44+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 16 OF 36
FILE NO.: I-5

RiverWalk Parkway Medians PC - 4268 -M2



Key Map
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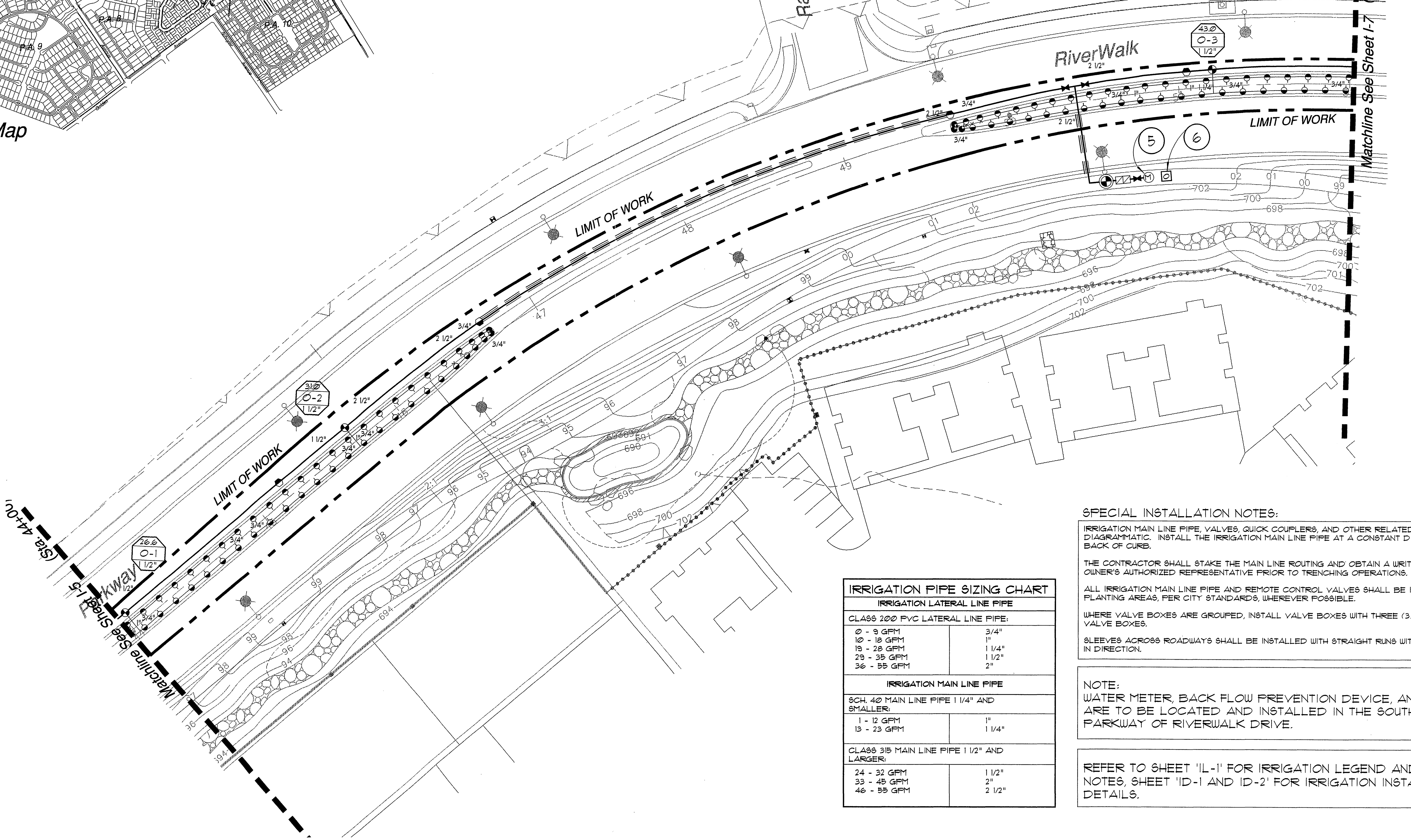

IRRIG. WATER STUB-OUT 'O' CRITERIA:

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Water Meter Number:	---
Water Meter Address:	---
Street Station:	50+75
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IRRIGATION PIPE SIZING CHART

IRRIGATION LATERAL LINE PIPE	
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0 15 30 60
SCALE: 1' = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 3/15/02 Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture / Urban Design / Planning / Habitat Restoration
100 Avenida Miramar, San Clemente, California 92672, Phone 949.366.6624, Fax 949.366.6626, www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/14/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan
Riverwalk Parkway Median
Sta. 44+00 - 52+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 17 OF 36
FILE NO.: I-6

RiverWalk Parkway Medians PC - 4268 -M2

SPECIAL INSTALLATION NOTES:

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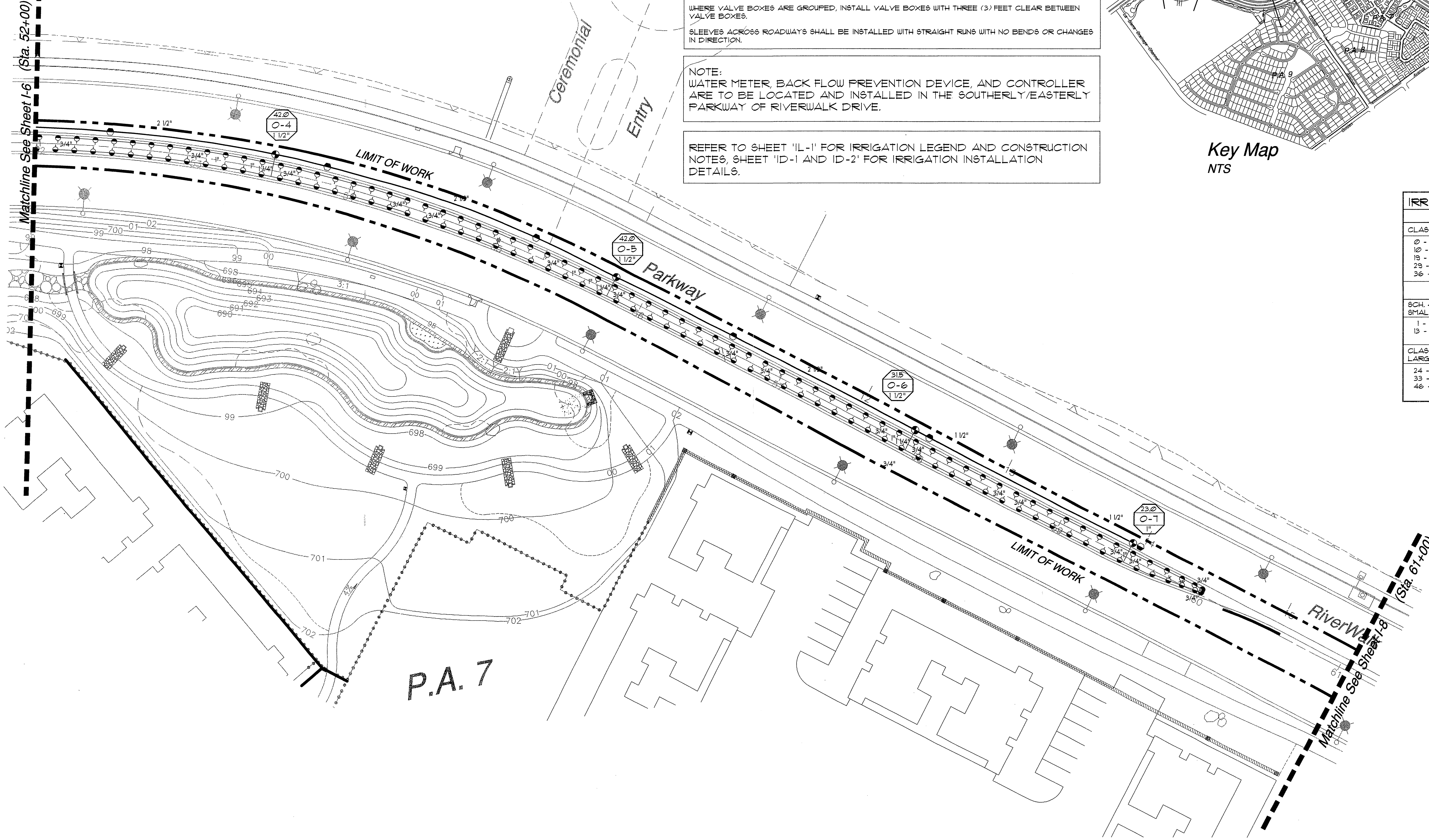

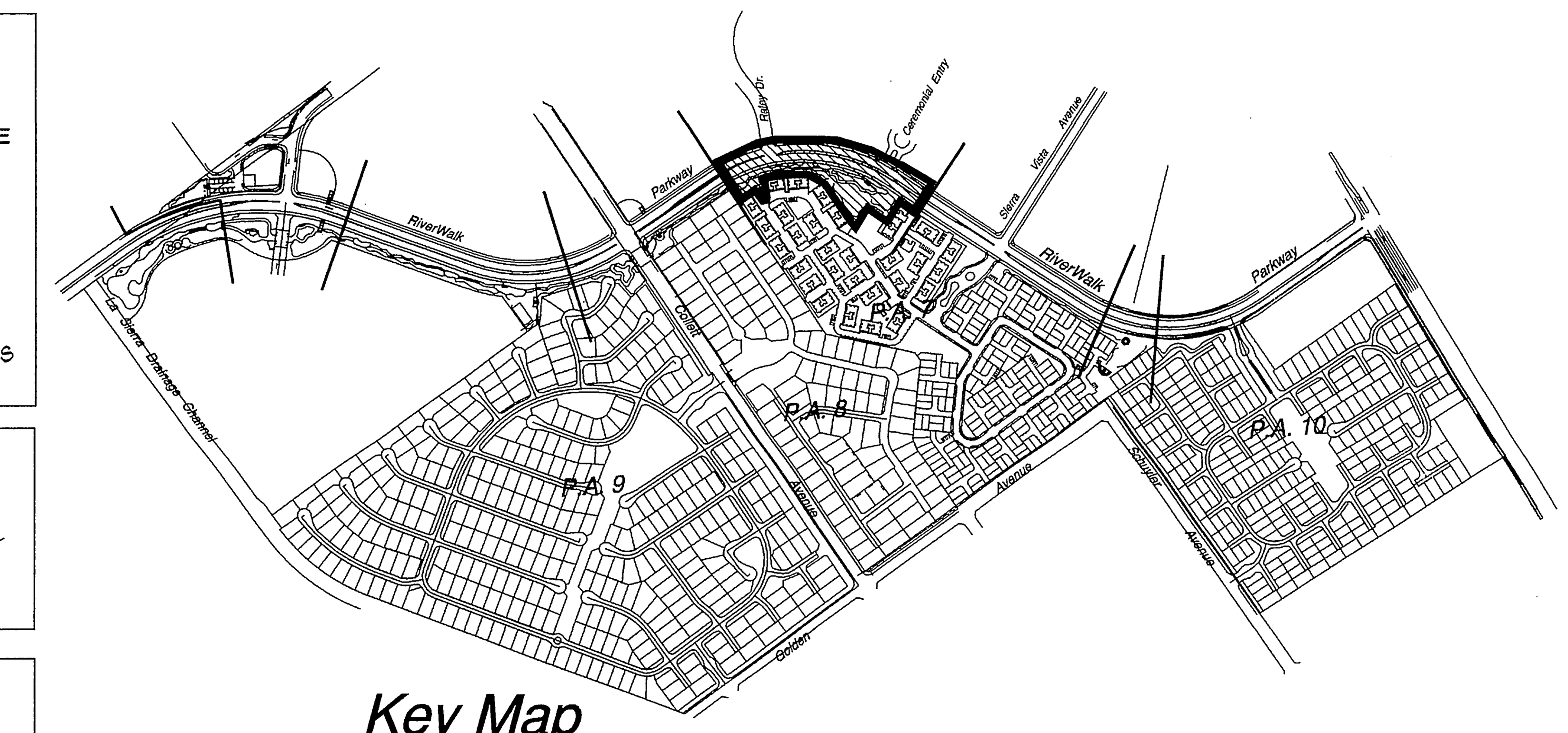

Key Map
NTS

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0 15 30 60
SCALE: 1' = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-0203

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature: Paul Haden — Date: 3/5/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration

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San Clemente
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TheCollaborativeWest

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: 1" = 30'-0"
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

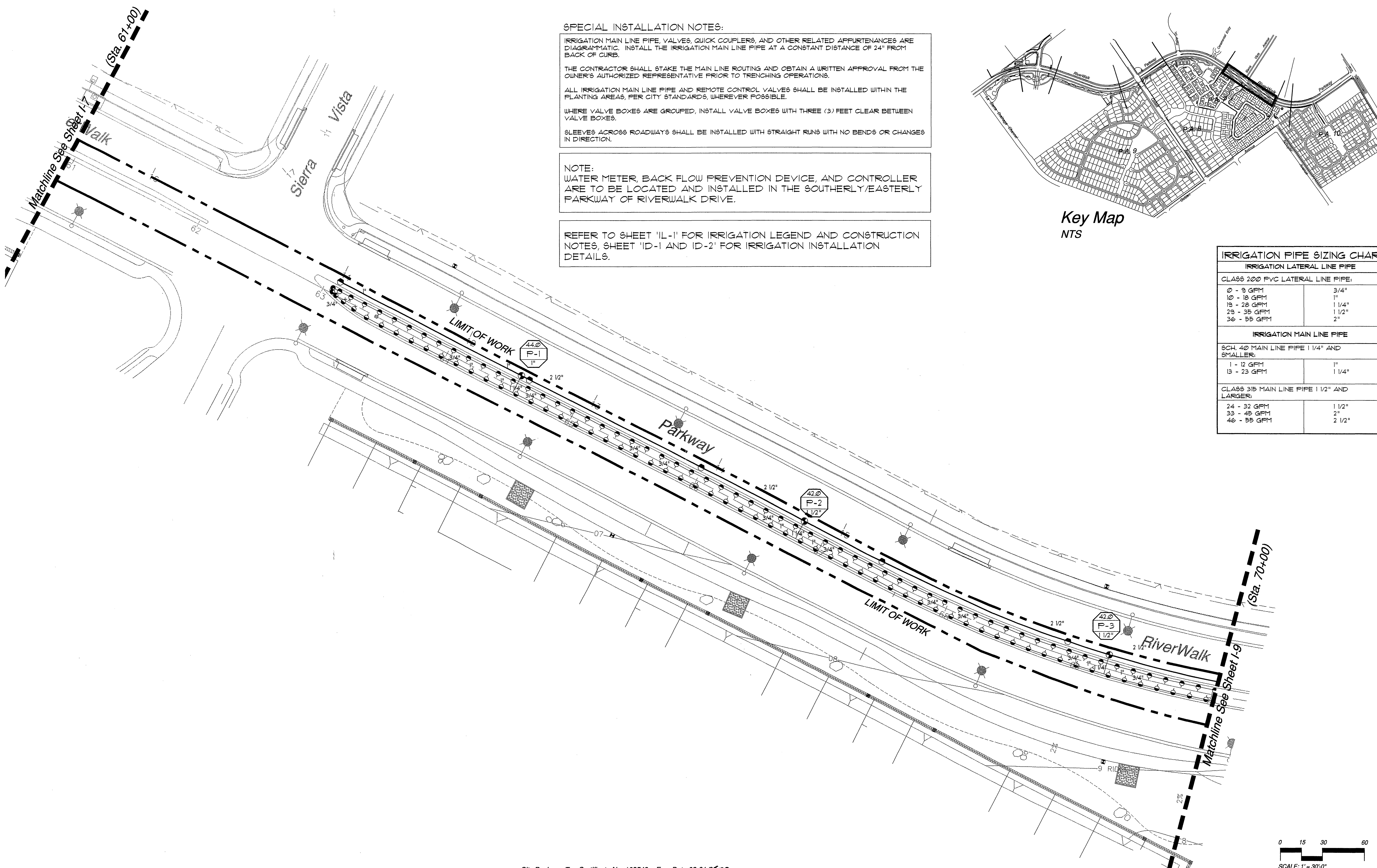
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan

Riverwalk Parkway Median
Sta. 52+00 - 61+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 18 OF 36
FILE NO.: I-7

RiverWalk Parkway Medians PC - 4268 -M2



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NTS

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0 15 30 60
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City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 2/15/02 Date — STATE OF CALIFORNIA

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EXPIRATION DATE: DATE:

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DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
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PLANNING DEPT.	(initials)	3/15/02
PARKS DEPT.	(initials)	3/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY (signature)
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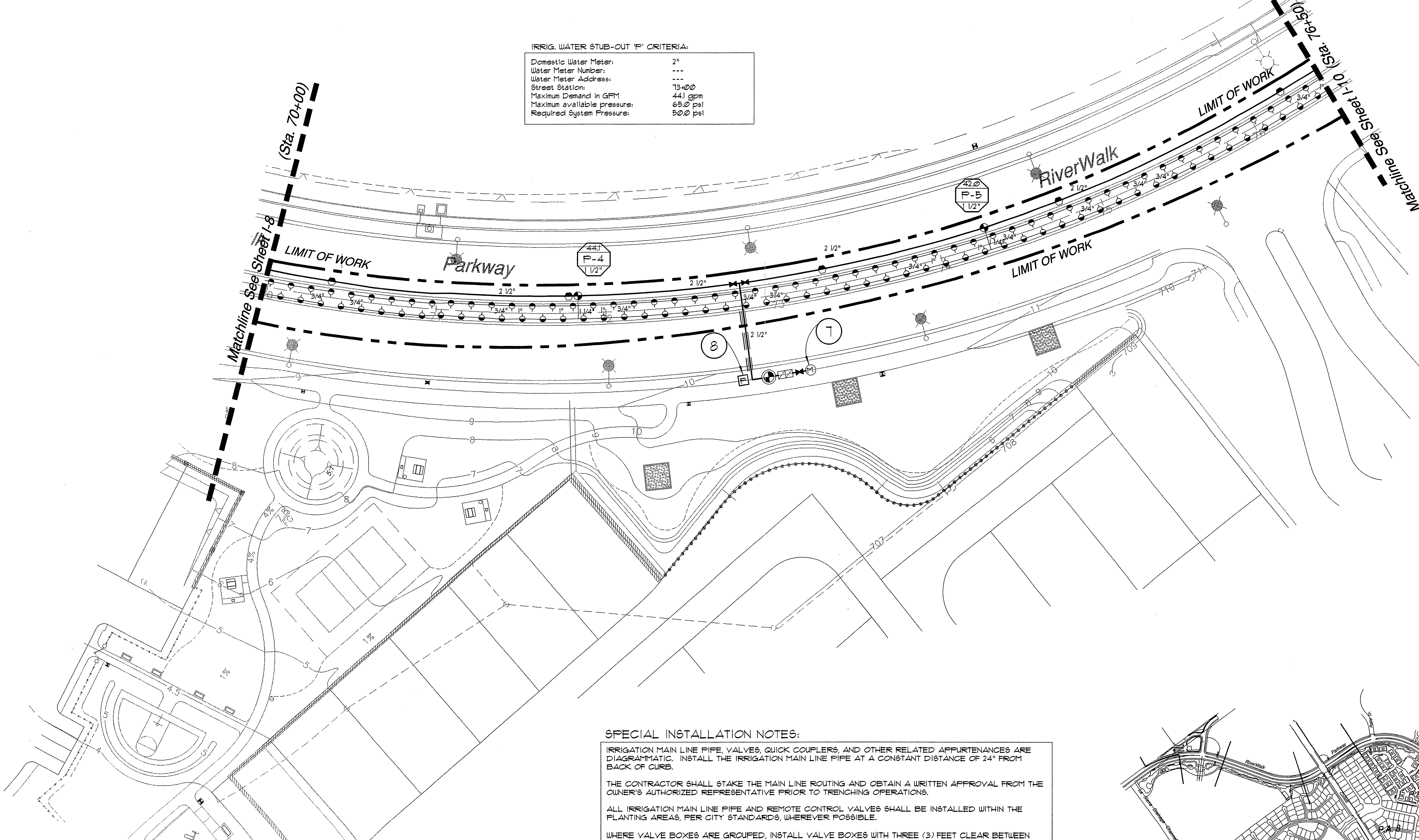
DATE 3/20/02

Irrigation Plan

Riverwalk Parkway Median
Sta. 61+00 - 70+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 19 OF 36
FILE NO.: I-8

RiverWalk Parkway Medians PC - 4268 -M2



IRRIG. WATER STUB-OUT 'P' CRITERIA:

Domestic Water Meter:	2"
Water Meter Number:	---
Water Meter Address:	---
Street Station:	73+00
Maximum Demand in GPM	44.1 gpm
Maximum available pressure:	65.0 psi
Required System Pressure:	50.0 psi

IRRIGATION PIPE SIZING CHART	
IRRIGATION LATERAL LINE PIPE	
CLASS 200 PVC LATERAL LINE PIPE:	
0 - 9 GPM	3/4"
10 - 18 GPM	1"
19 - 28 GPM	1 1/4"
29 - 35 GPM	1 1/2"
36 - 55 GPM	2"
IRRIGATION MAIN LINE PIPE	
SCH. 40 MAIN LINE PIPE 1 1/4" AND SMALLER:	
1 - 12 GPM	1"
13 - 23 GPM	1 1/4"
CLASS 315 MAIN LINE PIPE 1 1/2" AND LARGER:	
24 - 32 GPM	1 1/2"
33 - 45 GPM	2"
46 - 55 GPM	2 1/2"

SPECIAL INSTALLATION NOTES:

IRRIGATION MAIN LINE PIPE, VALVES, QUICK COUPLERS, AND OTHER RELATED APPURTENANCES ARE DIAGRAMMATIC. INSTALL THE IRRIGATION MAIN LINE PIPE AT A CONSTANT DISTANCE OF 24" FROM BACK OF CURB.

THE CONTRACTOR SHALL STAKE THE MAIN LINE ROUTING AND OBTAIN A WRITTEN APPROVAL FROM THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO TRENCHING OPERATIONS.

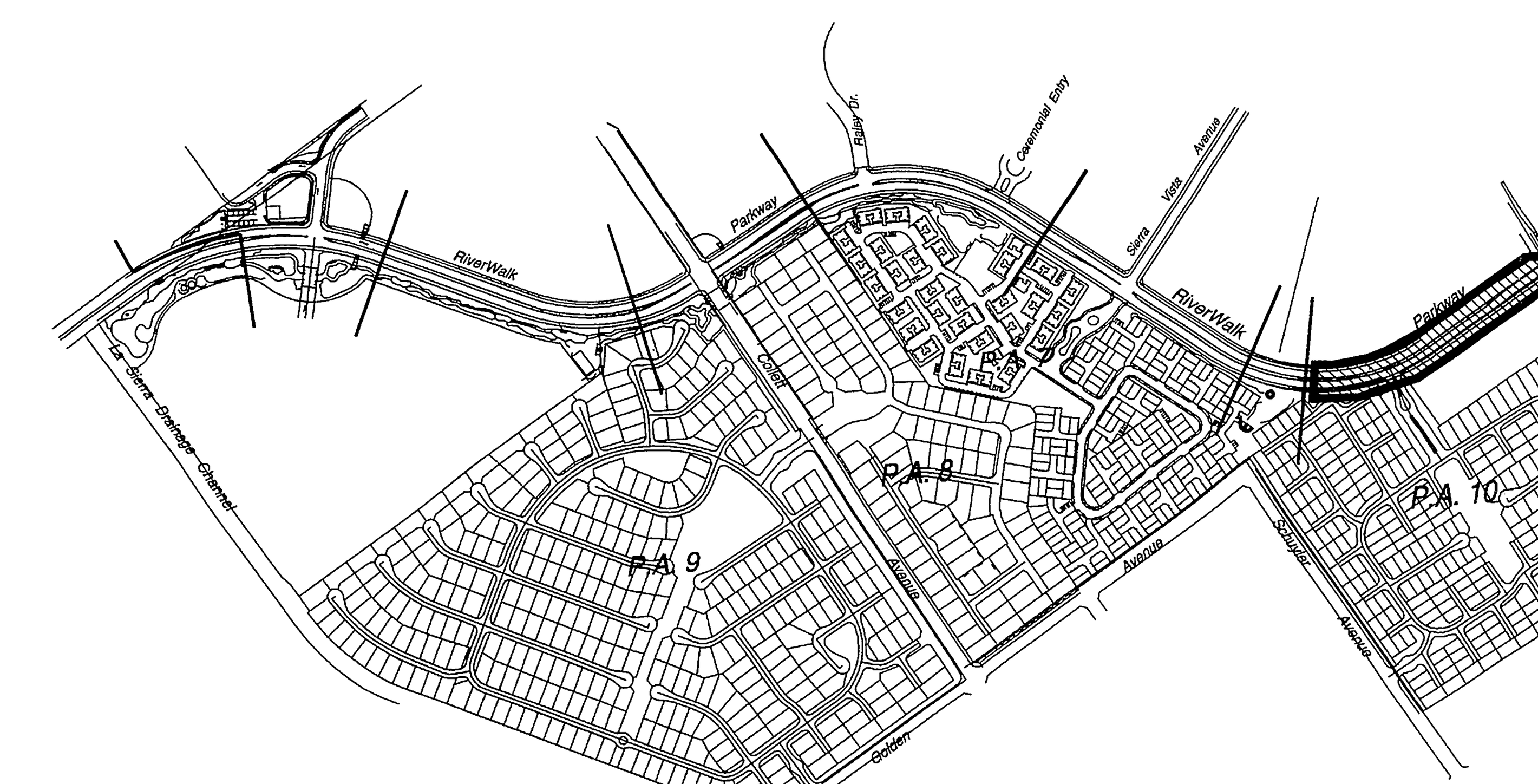
ALL IRRIGATION MAIN LINE PIPE AND REMOTE CONTROL VALVES SHALL BE INSTALLED WITHIN THE PLANTING AREAS, PER CITY STANDARDS, WHEREVER POSSIBLE.

WHERE VALVE BOXES ARE GROUPED, INSTALL VALVE BOXES WITH THREE (3) FEET CLEAR BETWEEN VALVE BOXES.

SLEEVES ACROSS ROADWAYS SHALL BE INSTALLED WITH STRAIGHT RUNS WITH NO BENDS OR CHANGES IN DIRECTION.

NOTE:
WATER METER, BACK FLOW PREVENTION DEVICE, AND CONTROLLER ARE TO BE LOCATED AND INSTALLED IN THE SOUTHERLY/EASTERLY PARKWAY OF RIVERWALK DRIVE.

REFER TO SHEET 'IL-1' FOR IRRIGATION LEGEND AND CONSTRUCTION NOTES, SHEET 'ID-1 AND ID-2' FOR IRRIGATION INSTALLATION DETAILS.



Key Map
NTS

0 15 30 60
SCALE: 1' = 30'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

Underground Service Alert
Call: TOLL FREE
1 — 800
227—2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Date 2/15/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ________

Landscape Architecture
Urban Design
Planning
Habitat Restoration

100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com

TheCollaborativeWest

SCALE: 1" = 30'-0"
BENCH MARK
DATE: Feb. 26, 2002

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

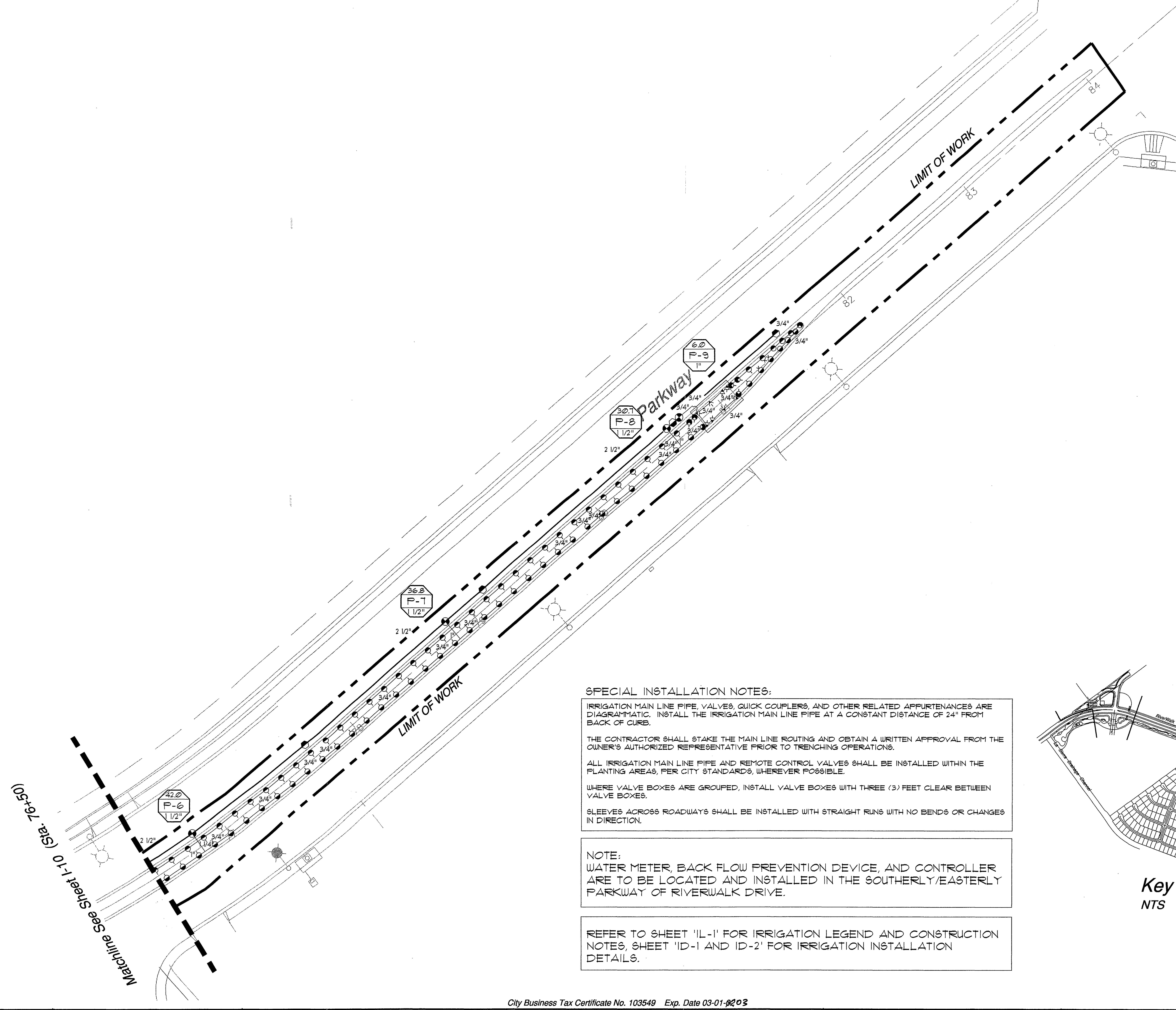
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan

Riverwalk Parkway Median
Sta. 70+00 - 76+50

PROJECT NO. GI01-000
R-3561-ML
SHEET 20 OF 36
FILE NO.: I-9

RiverWalk Parkway Medians PC - 4268 -M2,3



IRRIGATION PIPE SIZING CHART	
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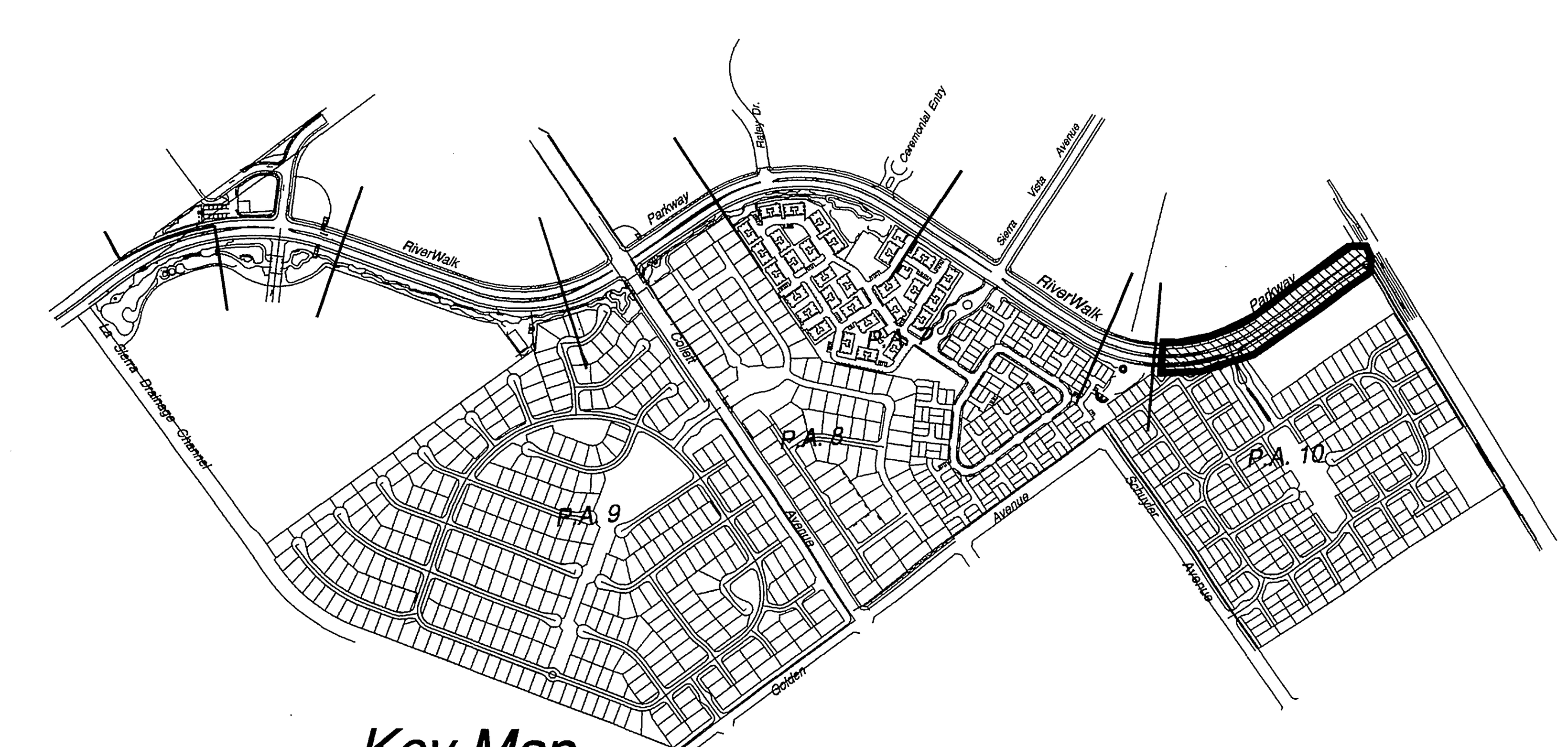

Key Map
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City Business Tax Certificate No. 103549 Exp. Date 03-01-0203

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1973 — Signature: Paul Haden — Date: 2/15/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

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BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY: Tom Boyd
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Plan

Riverwalk Parkway Median
Sta. 76+50

PROJECT NO. GI01-000

R-3561-ML

SHEET 21 OF 36

FILE NO.: I-10

RiverWalk Parkway Medians PC - 4268 -M

CONSTRUCTION NOTES (city medians):

(1) POINT OF CONNECTION 'M' TO THE EXISTING 1 1/2" DOMESTIC WATER METER PROVIDED FOR AND INSTALLED BY OTHERS. RUN A 2 1/2" COPPER LINE FROM THE METER TO THE 1 1/4" BACK-FLOW PREVENTION DEVICE THEN TO THE 1 1/2" MASTER VALVE. FINAL LOCATION OF THE BACK FLOW SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. FROM THE MASTER VALVE INSTALL PVC CLASS 315 PIPE TO THE SYSTEM. ALL MAIN LINE PIPE IS 2 1/2" UNLESS OTHERWISE NOTED. THE SYSTEM HAS BEEN DESIGNED FOR A MAXIMUM FLOW OF 43 GPM AT A MINIMUM PRESSURE OF 50.63 PSI.

(2) INSTALL A PTS MODEL NUMBER CA6-RM3-6/RRA/HFS-125/MVPV CONTROLLER ASSEMBLY 'M' IN THE LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. 120 VAC POWER SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. COORDINATE THE ELECTRICAL POWER WITH THE RIVERSIDE PUBLIC UTILITIES DEPARTMENT: ELECTRIC DIVISION, SENIOR ELECTRICAL ENGINEER VAHID BAZEL, AT (909) 826-5830, TO OBTAIN APPROVAL OF THE PROPOSED NON-METERED ELECTRICAL SERVICE LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTING THE 120 VAC POWER TO THE CONTROLLER. ALL 120 VAC POWER WIRING SHALL BE COMPLETED BY A LICENSED ELECTRICAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL CONNECT THE LOW VOLTAGE CONTROL WIRES TO THE CONTROLLER TERMINAL STRIP IN THE ORDER NOTED ON THE DRAWINGS UNLESS OTHERWISE INSTRUCTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

(3) POINT OF CONNECTION 'N' TO THE EXISTING 1 1/2" DOMESTIC WATER METER PROVIDED FOR AND INSTALLED BY OTHERS. RUN A 2 1/2" COPPER LINE FROM THE METER TO THE 1 1/4" BACK-FLOW PREVENTION DEVICE THEN TO THE 1 1/2" MASTER VALVE. FINAL LOCATION OF THE BACK FLOW SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. FROM THE MASTER VALVE INSTALL PVC CLASS 315 PIPE TO THE SYSTEM. ALL MAIN LINE PIPE IS 2 1/2" UNLESS OTHERWISE NOTED. THE SYSTEM HAS BEEN DESIGNED FOR A MAXIMUM FLOW OF 44 GPM AT A MINIMUM PRESSURE OF 55.60 PSI.

(4) INSTALL A PTS MODEL NUMBER CA6-RM3-6/RRA/HFS-125/MVPV CONTROLLER ASSEMBLY 'N' IN THE LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. 120 VAC POWER SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. COORDINATE THE ELECTRICAL POWER WITH THE RIVERSIDE PUBLIC UTILITIES DEPARTMENT: ELECTRIC DIVISION, SENIOR ELECTRICAL ENGINEER VAHID BAZEL, AT (909) 826-5830, TO OBTAIN APPROVAL OF THE PROPOSED NON-METERED ELECTRICAL SERVICE LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTING THE 120 VAC POWER TO THE CONTROLLER. ALL 120 VAC POWER WIRING SHALL BE COMPLETED BY A LICENSED ELECTRICAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL CONNECT THE LOW VOLTAGE CONTROL WIRES TO THE CONTROLLER TERMINAL STRIP IN THE ORDER NOTED ON THE DRAWINGS UNLESS OTHERWISE INSTRUCTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

(5) POINT OF CONNECTION 'O' TO THE EXISTING 1 1/2" DOMESTIC WATER METER PROVIDED FOR AND INSTALLED BY OTHERS. RUN A 2 1/2" COPPER LINE FROM THE METER TO THE 1 1/4" BACK-FLOW PREVENTION DEVICE THEN TO THE 1 1/2" MASTER VALVE. FINAL LOCATION OF THE BACK FLOW SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. FROM THE MASTER VALVE INSTALL PVC CLASS 315 PIPE TO THE SYSTEM. ALL MAIN LINE PIPE IS 2 1/2" UNLESS OTHERWISE NOTED. THE SYSTEM HAS BEEN DESIGNED FOR A MAXIMUM FLOW OF 43 GPM AT A MINIMUM PRESSURE OF 53.20 PSI.

(6) INSTALL A PTS MODEL NUMBER CA6-RM3-8/RRA/HFS-125/MVPV CONTROLLER ASSEMBLY 'O' IN THE LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. 120 VAC POWER SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. COORDINATE THE ELECTRICAL POWER WITH THE RIVERSIDE PUBLIC UTILITIES DEPARTMENT: ELECTRIC DIVISION, SENIOR ELECTRICAL ENGINEER VAHID BAZEL, AT (909) 826-5830, TO OBTAIN APPROVAL OF THE PROPOSED NON-METERED ELECTRICAL SERVICE LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTING THE 120 VAC POWER TO THE CONTROLLER. ALL 120 VAC POWER WIRING SHALL BE COMPLETED BY A LICENSED ELECTRICAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL CONNECT THE LOW VOLTAGE CONTROL WIRES TO THE CONTROLLER TERMINAL STRIP IN THE ORDER NOTED ON THE DRAWINGS UNLESS OTHERWISE INSTRUCTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

(7) POINT OF CONNECTION 'P' TO THE EXISTING 1 1/2" DOMESTIC WATER METER PROVIDED FOR AND INSTALLED BY OTHERS. RUN A 2 1/2" COPPER LINE FROM THE METER TO THE 1 1/4" BACK-FLOW PREVENTION DEVICE THEN TO THE 1 1/2" MASTER VALVE. FINAL LOCATION OF THE BACK FLOW SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. FROM THE MASTER VALVE INSTALL PVC CLASS 315 PIPE TO THE SYSTEM. ALL MAIN LINE PIPE IS 2 1/2" UNLESS OTHERWISE NOTED. THE SYSTEM HAS BEEN DESIGNED FOR A MAXIMUM FLOW OF 44.1 GPM AT A MINIMUM PRESSURE OF 55.70 PSI.

(8) INSTALL A PTS MODEL NUMBER CA6-RM3-8/RRA/HFS-125/MVPV CONTROLLER ASSEMBLY 'P' IN THE LOCATION APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. 120 VAC POWER SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. COORDINATE THE ELECTRICAL POWER WITH THE RIVERSIDE PUBLIC UTILITIES DEPARTMENT: ELECTRIC DIVISION, SENIOR ELECTRICAL ENGINEER VAHID BAZEL, AT (909) 826-5830, TO OBTAIN APPROVAL OF THE PROPOSED NON-METERED ELECTRICAL SERVICE LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONNECTING THE 120 VAC POWER TO THE CONTROLLER. ALL 120 VAC POWER WIRING SHALL BE COMPLETED BY A LICENSED ELECTRICAL CONTRACTOR. THE LANDSCAPE CONTRACTOR SHALL CONNECT THE LOW VOLTAGE CONTROL WIRES TO THE CONTROLLER TERMINAL STRIP IN THE ORDER NOTED ON THE DRAWINGS UNLESS OTHERWISE INSTRUCTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

CONTROLLER ASSEMBLIES MANUFACTURED BY PACIFIC TECHNICAL SERVICE (PTS), ADDRESS 23372 SOUTH POINTE DRIVE, SUITE 'A', LAGUNA HILLS, CALIFORNIA 92653 TELEPHONE (949) 837-4737, CONTACT: DARRYL GREEN

GENERAL IRRIGATION NOTES

1. ALL MAIN LINE PIPING AND CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES. MAIN LINE SLEEVE SIZE SHALL BE A MINIMUM OF TWICE (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING.

2. WHERE PAVING IS GREATER THAN FIVE FEET IN WIDTH, LATERAL LINE PIPING SHALL BE INSTALLED IN PVC SCHEDULE 40 SLEEVES. SLEEVES AND LATERAL PIPE SHALL BE INSTALLED PRIOR TO PAVING.

3. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS NO SUBSTITUTIONS OF SMALLER PIPE SHALL BE PERMITTED BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF SAID REJECTION.

4. FINAL LOCATION OF THE AUTOMATIC CONTROLLER LOCATION SHALL BE APPROVED BY THE PARK PROJECT INSPECTOR.

5. 120 VAC POWER SOURCE FOR THE CONTROLLER SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FORM THE ELECTRICAL SOURCE TO THE CONTROLLER.

6. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.

7. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVER SPRAY ONTO WALKS, STREETS, WALLS, ETC.

8. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. THE CONTRACTOR SHALL LOCATE ALL VALVES IN SHRUB AREAS UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE.

9. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK AT NO EXPENSE TO THE OWNER. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERAL LINES THROUGH WALLS, UNDER ROADWAYS, DRIVES, AND PAVING, ETC.

10. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

11. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

12. ADV (ANTI DRAIN VALVE) UNITS AS SHOWN IN THE DETAIL DRAWINGS ARE FOR TYPICAL INSTALLATION ONLY, AND MAY NOT BE REQUIRED ON ALL HEADS. PRIOR TO INSTALLATION THE CONTRACTOR SHALL VERIFY WITH THE ON SITE GRADES IF THERE IS AN ELEVATION DIFFERENCE OF 12" OF MORE BETWEEN THE HIGHEST HEAD AND LOWEST HEAD ON A SYSTEM, THE ADV SHALL BE INSTALLED PER DETAIL DRAWING.

13. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.

14. ALL RAIN BIRD POP-UP SPRAY HEADS SHALL BE INSTALLED WITH THE 'NP' COVER.

15. REFER TO PIPE SIZING CHART FOR LATERAL LINE PIPING. ALL MAIN LINE IS 2 1/2" UNLESS OTHERWISE NOTED.

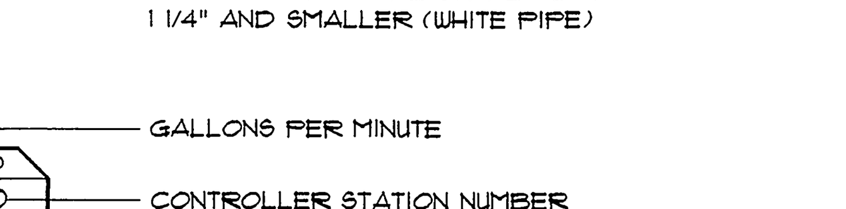
16. ALL CONTROL WIRE BENEATH PAVEMENT SHALL BE INSTALLED WITHIN PVC SCH 40 SLEEVE(S). FOR ALL IRRIGATION CONTROL WIRE TO BE INSTALLED IN SLEEVES, REFER TO SIZING CHART BELOW. ALL COMMON WIRES TO BE #12, ALL CONTROL WIRES TO BE #14.

WIRE QUANTITY:	QUANTITY AND SLEEVE SIZE:
1-20 #14 CONTROL WIRES	(1) 2" PVC SCH. 40 SLEEVE
21-40 #14 CONTROL WIRES	(2) 2" PVC SCH. 40 SLEEVE
MASTER VALVE WIRE	(1) 3/4" PVC SCH. 40 SLEEVE

20. INSTALL THREE (3) SPARE WIRES IN THE WIRE SPLICE BOX LOCATED AT THE TERMINAL ENDS OF EACH LENGTH OF PRESSURE SUPPLY LINE. EACH SPARE WIRE SHOULD COME FROM THE SAME CONTROLLER UNIT AS THE ELECTRIC CONTROL VALVE IMMEDIATELY UPSTREAM FROM THE WIRE SPICE BOX. ALL SPARE WIRES SHALL BE A DIFFERENT COLOR THAN THE CONTROL WIRES.

IRRIGATION LEGEND:

SYMBOL:	MANUFACTURER:	MODEL NUMBER:	DESCRIPTION:	RAD.:	P.S.I.:	G.P.M.:	DETAIL:
	RAINBIRD	1806-SAM-8Q	POP-UP SPRAY HEAD	6-7'	25	.36	A
	RAINBIRD	1806-SAM-8T	POP-UP SPRAY HEAD	6-7'	25	.48	A
	RAINBIRD	1806-SAM-8H	POP-UP SPRAY HEAD	6-7'	25	.72	A
	RAINBIRD	1806-SAM-8F	POP-UP SPRAY HEAD	6-7'	25	1.44	A
	RAINBIRD	1806-SAM-10Q	POP-UP SPRAY HEAD	8-9'	25	.36	A
	RAINBIRD	1806-SAM-10T	POP-UP SPRAY HEAD	8-9'	25	.48	A
	RAINBIRD	1806-SAM-10H	POP-UP SPRAYHEAD	8-9'	25	.72	A
	RAINBIRD	1806-SAM-10F	POP-UP SPRAY HEAD	8-9'	25	1.44	A
	RAINBIRD	1806-SAM-12Q	POP-UP SPRAY HEAD	10-11'	25	.60	A
	RAINBIRD	1806-SAM-12T	POP-UP SPRAY HEAD	10-11'	25	.80	A
	RAINBIRD	1806-SAM-12H	POP-UP SPRAY HEAD	10-11'	25	1.20	A
	RAINBIRD	1806-SAM-12F	POP-UP SPRAY HEAD	10-11'	25	2.40	A
	RAIN BIRD	PESB SERIES	ELECTRIC CONTROL VALVE (SEE PLAN FOR SIZE)				B
	RAINBIRD	44LRC	QUICK COUPLING VALVE				C
	NIBCO	T-590-Y	LINE SIZE ISOLATION BALL VALVE				D
	GRISWOLD	2230MP	NORMALLY CLOSED MASTER VALVE				E
M	EXISTING	BY OTHERS	DOMESTIC WATER METER				---
	FEBCO	825YA	BACKFLOW PREVENTION DEVICE, WITHIN A LOCKABLE ENCLOSURE.				F
A	PTS	CONTROLLER ASSEMBLY, SEE CONSTRUCTION NOTES THIS SHEET					I & J
	APPROVED	17" RECTANGULAR	WIRE SPLICE BOX				---
	APPROVED	PVC SCH 40	IRRIGATION WIRE CONDUIT, SEE GENERAL IRIGATION NOTES, THIS SHEET				G
	APPROVED	PVC SCH 40	6" DIA. IRRIGATION SLEEVE				G
	APPROVED	PVC CL 200	LATERAL LINE PIPE (WHITE PIPE)				G & H
	APPROVED	PVC CL 315	POTABLE PRESSURE SUPPLY LINE 1 1/2" AND LARGER (WHITE PIPE)				G & H
	APPROVED	PVC SCH. 40	POTABLE PRESSURE SUPPLY LINE 1 1/4" AND SMALLER (WHITE PIPE)				



IRRIGATION PRESSURE CALCULATION TABLE POC 'M'

Project Name: Riverwalk Median, RIVERSIDE, CA
Water Stub-out No.: M . Size: 1 1/2" .
Water Meter Elevation: 692.5'
Static Pressure: 65 psi .

Remote Control Valve.: M-4 Size: 1 1/2" .
Demand: 32.3 gpm .
Elevation of the Highest Head: 693' .
Pressure Required at the Head: 25 psi .

SIZE:	DESCRIPTION:	PSI LOSS:
1 1/2"	Domestic Water Meter	2.4
1 1/4"	Backflow Prevention Device	8.8
line size	Gate Valve	1.5
712'	Main line Pipe	2.63
VARIES	Lateral Line Pipe	3.60
1 1/2"	Remote Control Valve	3.50
---	Fitting Loss (10%)	2.2
---	Elevation (LOSS/GAIN)	1.0
	Pressure Required at Head	25 PSI
	TOTAL SYSTEM REQ.	50.63
	STATIC PRESSURE	65.00
	RESIDUAL PRESSURE	14.37

IRRIGATION PRESSURE CALCULATION TABLE POC 'N'

Project Name: Riverwalk Median, RIVERSIDE, CA
Water Stub-out No.: N . Size: 1 1/2" .
Water Meter Elevation: 695.5'
Static Pressure: 65 psi .

Remote Control Valve.: N-1 Size: 1 1/2" .
Demand: 38.0 gpm .
Elevation of the Highest Head: 696' .
Pressure Required at the Head: 25 psi .

SIZE:	DESCRIPTION:	PSI LOSS:
1 1/2"	Domestic Water Meter	3.0
1 1/4"	Backflow Prevention Device	8.9
line size	Gate Valve	1.6
1369'	Main line Pipe	6.3
VARIES	Lateral Line Pipe	3.50
1 1/2"	Remote Control Valve	3.60
---	Fitting Loss (10%)	2.7
---	Elevation (LOSS/GAIN)	1.0
	Pressure Required at Head	25 PSI
	TOTAL SYSTEM REQ.	55.60
	STATIC PRESSURE	65.00
	RESIDUAL PRESSURE	9.40

IRRIGATION PRESSURE CALCULATION TABLE POC 'O'

Project Name: Riverwalk Median, RIVERSIDE, CA
Water Stub-out No.: O . Size: 1 1/2" .
Water Meter Elevation: 703'
Static Pressure: 65 psi .

Remote Control Valve.: O-5 Size: 1 1/2" .
Demand: 42.0 gpm .
Elevation of the Highest Head: 705' .
Pressure Required at the Head: 25 psi .

SIZE:	DESCRIPTION:	PSI LOSS:
1 1/2"	Domestic Water Meter	3.6
1 1/4"	Backflow Prevention Device	9.0
line size	Gate Valve	1.7
647'	Main line Pipe	3.50
VARIES	Lateral Line Pipe	3.50
1 1/2"	Remote Control Valve	3.40
---	Fitting Loss (10%)	2.5
---	Elevation (LOSS/GAIN)	1.0
	Pressure Required at Head	25 PSI
	TOTAL SYSTEM REQ.	53.2
	STATIC PRESSURE	65.00
	RESIDUAL PRESSURE	11.80

IRRIGATION PRESSURE CALCULATION TABLE POC 'P'

Project Name: Riverwalk Median, RIVERSIDE, CA
Water Stub-out No.: P . Size: 1 1/2" .
Water Meter Elevation: 710.2'
Static Pressure: 65 psi .

Remote Control Valve.: P-1 Size: 1 1/2" .
Demand: 44.0 gpm .
Elevation of the Highest Head: 712.5' .
Pressure Required at the Head: 25 psi .

SIZE:	DESCRIPTION:	PSI LOSS:
1 1/2"	Domestic Water Meter	3.9
1 1/4"	Backflow Prevention Device	9.1
line size	Gate Valve	1.6
1369'	Main line Pipe	5.5
VARIES	Lateral Line Pipe	3.50
1 1/2"	Remote Control Valve	3.40
---	Fitting Loss (10%)	2.7
---	Elevation (LOSS/GAIN)	1.0
	Pressure Required at Head	25 PSI
	TOTAL SYSTEM REQ.	55.70
	STATIC PRESSURE	65.00
	RESIDUAL PRESSURE	9.30

City Business Tax Certificate No. 103549 Exp. Date 03-01-02 03

Underground Service Alert
Call: TOLL FREE 1 – 800 227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — 3/15/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
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100 Avenida Miramar
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California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: None
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

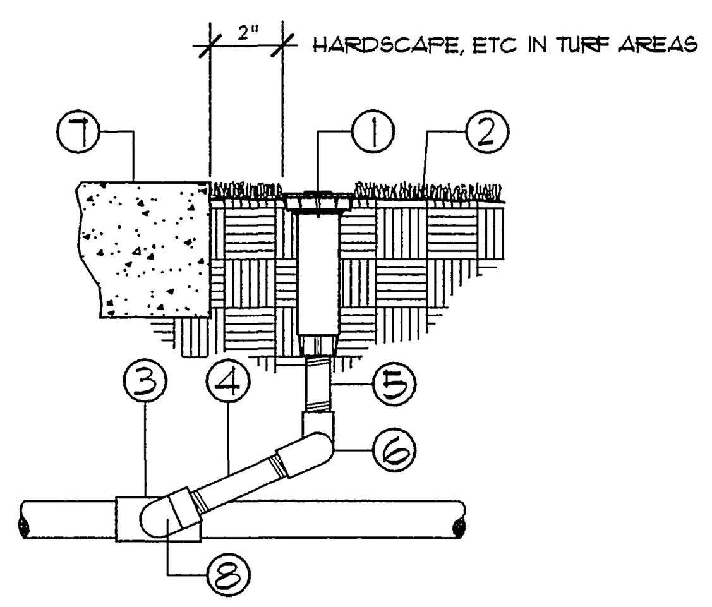
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		3/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Legend and Notes

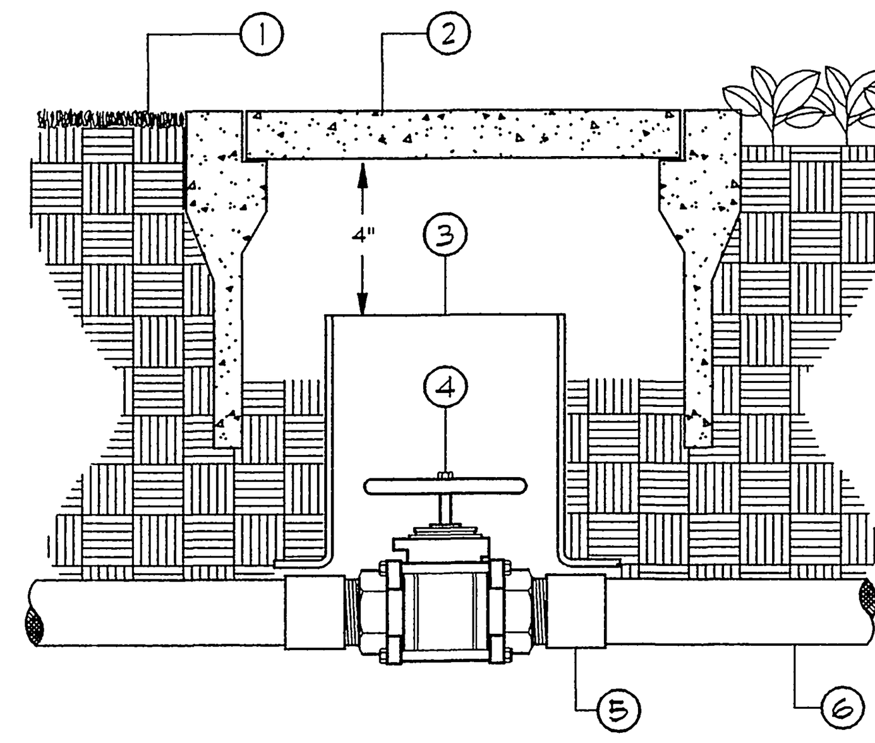
PROJECT NO. GI01-000
R-3561-ML
SHEET 22 OF 36
FILE NO.: IL-1

RiverWalk Parkway Medians PC - 4268 -M



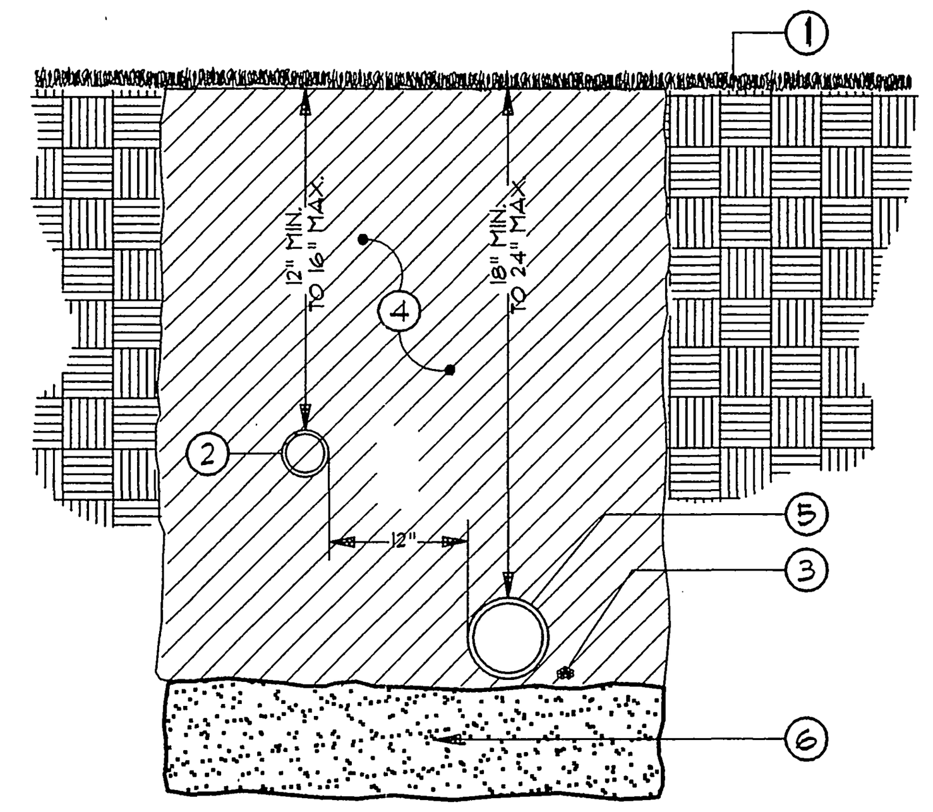
① POP-UP SPRAY HEAD INSTALL 6" FROM EDGE OF HARDSCAPE
② FINISH GRADE
③ TEE IN LATERAL LINE PIPE
④ 1/2" X 2" SCH. 80 PVC NIPPLE
⑤ 1/2" X 8" SCH. 80 PVC NIPPLE
⑥ 1/2" MIP X FIP SCH. 40, 90 ELL (2 REQUIRED)
⑦ HARDSCAPE
⑧ PVC SCH. 40 STREET ELL

(A) 6" POP-UP TURF HEAD
NEXT TO HARDSCAPE
NOT TO SCALE



① FINISH GRADE 1" FROM TOP OF BOX IN TURF AREAS 2" FROM TOP OF BOX IN SHRUB AREAS
② RECTANGULAR CONCRETE VALVE BOX WITH CAST IRON LID, NON-HINGED LOCKING TYPE
③ 8" DIA. CL. 160 PVC SLEEVE BOTTOM TO BE FLARED AND CONTACT TOP OF PRESSURE SUPPLY LINE
④ BALL VALVE WITH LEVER HANDLE
⑤ SLIP X MIPT SCH. 40 PVC ADAPTOR (2 REQUIRED)
⑥ PVC PRESSURE SUPPLY LINE

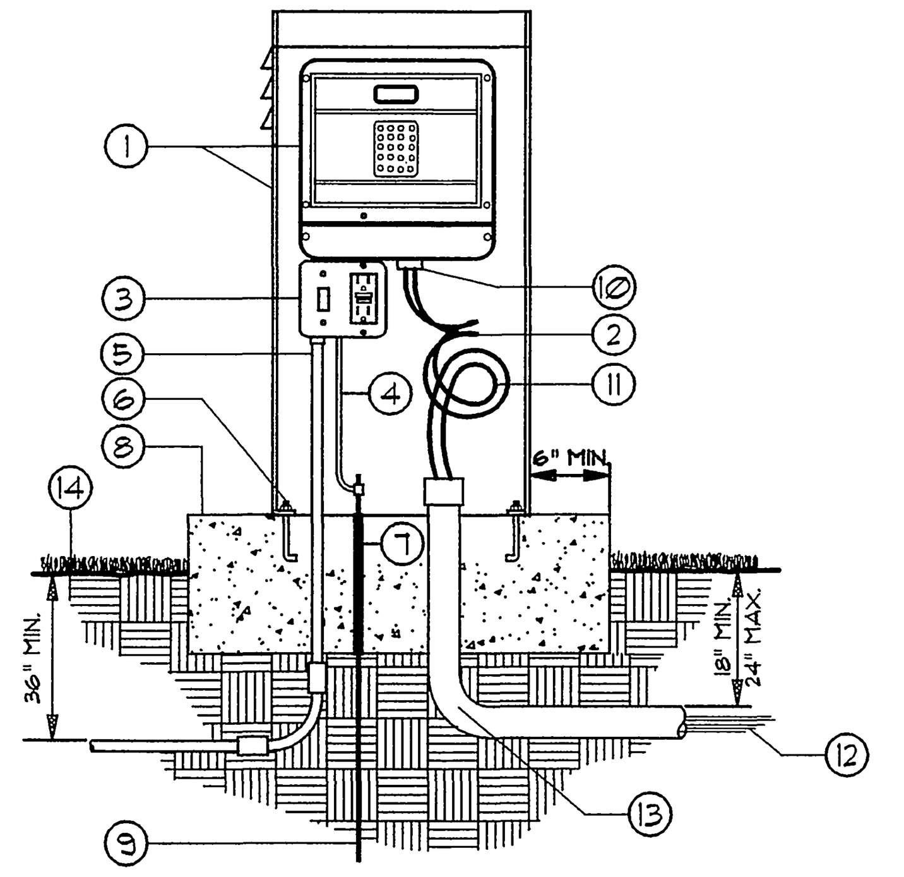
(D) ISOLATION VALVE
2 1/2" AND SMALLER
NOT TO SCALE



① FINISH GRADE ② LATERAL LINE ③ CONTROL WIRES ④ CLEAN BACKFILL (REFER TO SPECIFICATIONS) ⑤ PRESSURE SUPPLY LINE ⑥ SAND BEDDING (REFER TO SPECIFICATIONS)

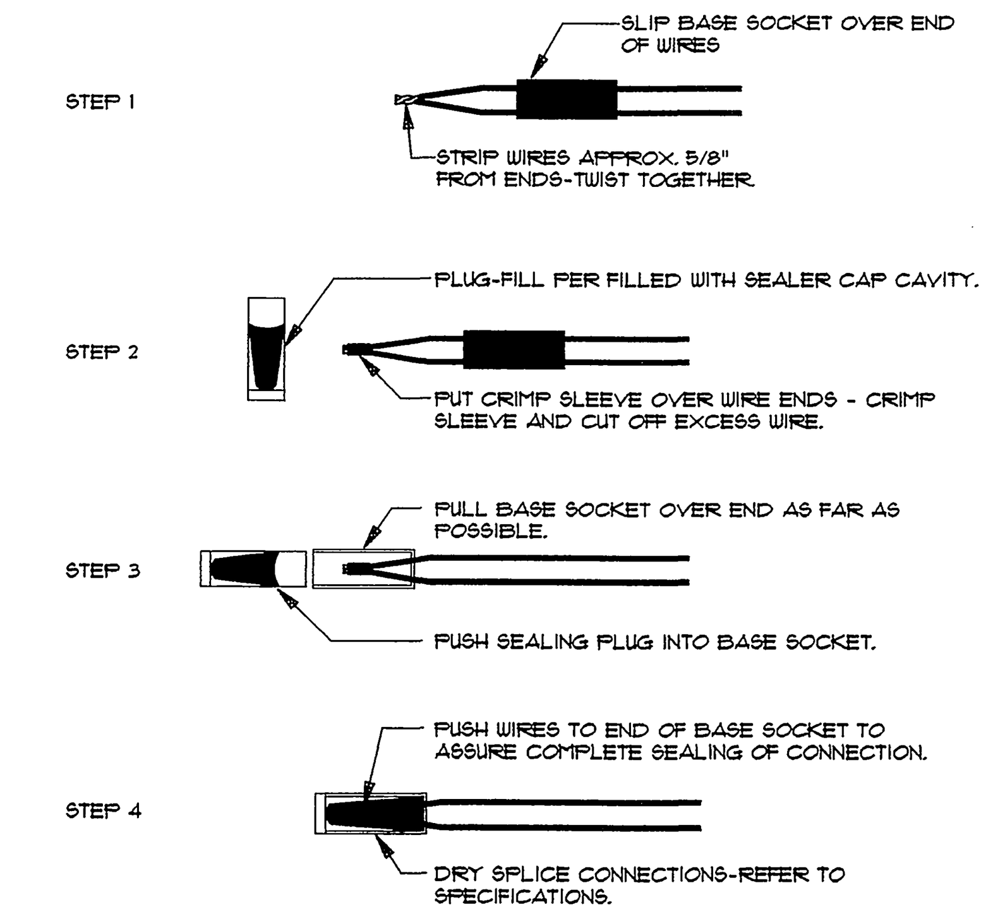
INSTALL ALL CONTROL WIRE ON THE UNDERSIDE OF THE PRESSURE SUPPLY LINE.

(G) TRENCHING
IN LANDSCAPE AREAS
NOT TO SCALE

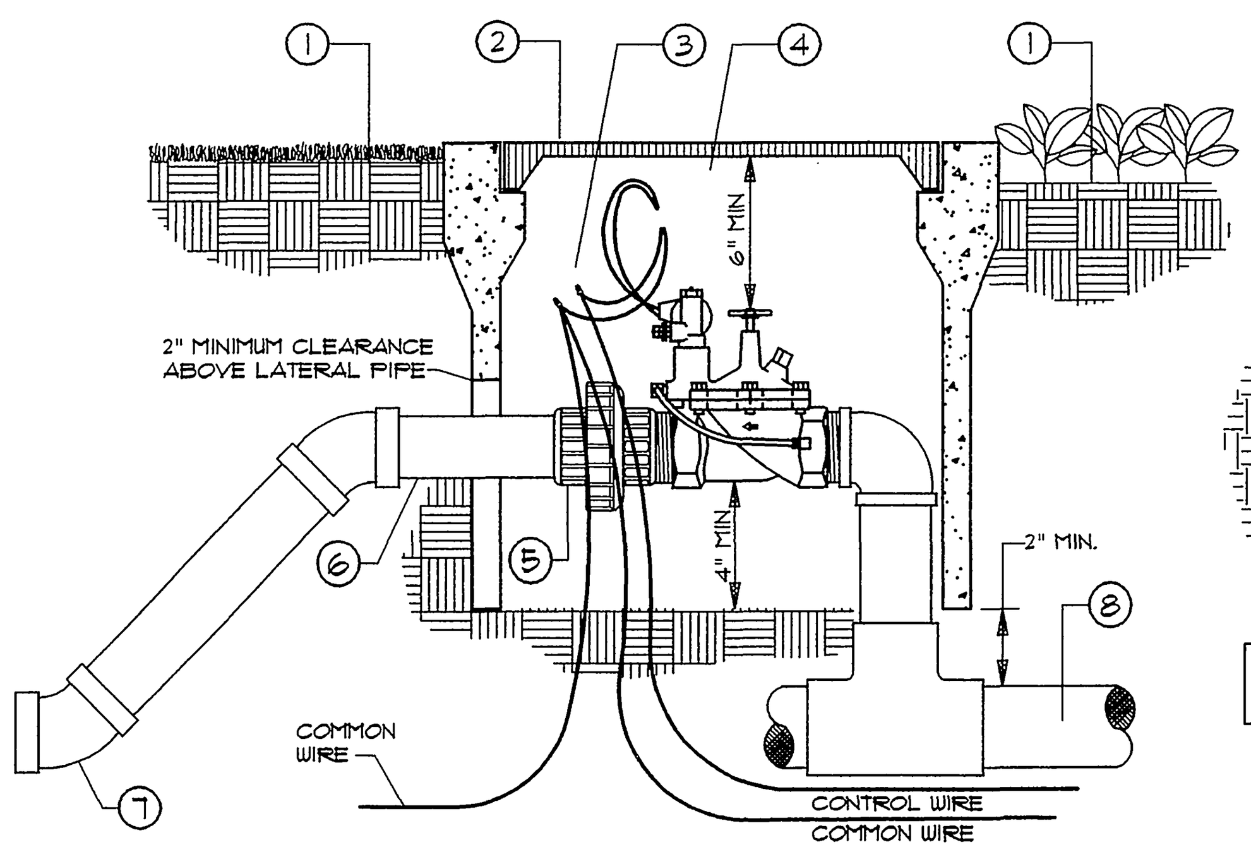


① WEATHERPROOF ELECTRIC CONTROLLER SECURELY WALL MOUNTED TO LE MEUR 42" ENCLOSURE MODEL 5 FACTORY PAINTED BEIGE W/ CONVENIENCE OUTLET AND HINGED DOOR.
② WIRE NUT CONNECTIONS. (SCOTCHLOX AND PENTITE NOT ACCEPTED.
③ 15 AMP BREAKER IN SQUARE 'D' SINGLE BREAKER BOX MODEL Q02-4L70S OR EQUAL. MAKE 120V POWER AND GROUND CONNECTIONS AT BREAKER BOX, MOUNTED IN ENCLOSURE.
④ 1/2" FLEX CONDUIT WITH #8 WIRE.
⑤ 2 STRANDS #12 WIRE IN 1" GALV. CONDUIT TO POWER SOURCE. BOND SERVICE CONDUIT TO BREAKER BOX.
⑥ SECURELY ANCHOR ENCLOSURE TO CONCRETE PAD.
⑦ PVC SCH 40 SLEEVE FOR COPPER GROUNDING ROD.
⑧ CONCRETE BASE - EXTEND IN FRONT OF CABINET SUFFICIENT DISTANCE TO ALLOW UNOBSTRUCTED AREA FOR DOOR SWING FREE OF PLANTINGS
⑨ 5/8" X 8' DRIVEN COPPER GROUNDING ROD. LOCATE INSIDE ENCLOSURE. NOTE: DRIVE ROD PRIOR TO INSTALLING ENCLOSURE.
⑩ INSTALL AN INSULATING ELECTRICAL BUSHING AT CONTROLLER TO AVOID EXCESSIVE WEAR ON WIRE.
⑪ 3' EXPANSION LOOP OF WIRE NEATLY TIED WITH ZIP-LOCK TIES.
⑫ LOW VOLTAGE DIRECT BURIAL WIRES TO CONTROL VALVES.
⑬ 90° SWEEP ELL (INSTALL 1" MIN. ABOVE CONCRETE BASE) SIZE AS NECESSARY FOR NUMBER OF WIRES/STATIONS ON THE CONTROLLER.
⑭ FINISH GRADE- 1" BELOW TOP OF CONCRETE BASE IN TURF AREAS AND 2" BELOW TOP OF CONCRETE BASE IN SHRUB AREAS.

(I) CONTROLLER
WALL MOUNT INSIDE VANDAL PROOF ENCLOSURE
NOT TO SCALE

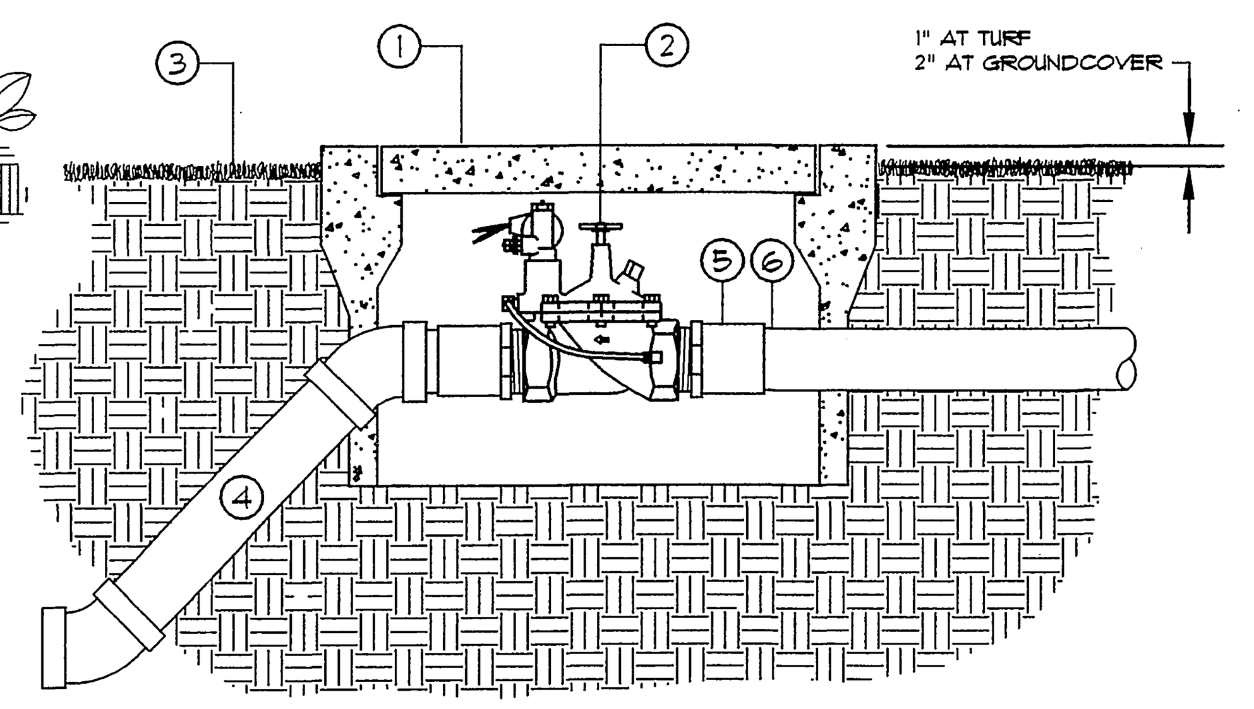


(O) WIRE CONNECTOR



① FINISH GRADE: 1" FROM TOP OF VALVE BOX IN TURF AND 2" FROM TOP OF VALVE BOX IN SHRUB AREAS.
② CONCRETE VALVE BOX WITH LOCKING NON-HINGED CAST IRON COVER, STENCIL STATION NUMBER ON LID.
③ SOLDER CONNECTION SCOTCH COATED SPLICE W/ WATERPROOF WIRE CONNECTORS (TYPICAL)
④ 24" EXPANSION LOOP WITH STAMPED BRASS TAG 1/2"X1" W/ 1/4" HIGH CONTROLLER SEQUENCE NUMBER
⑤ PVC UNION
⑥ SCHEDULE 80 PVC NIPPLE (TYPICAL)
⑦ WHEN LESS THAN 10" OF HORIZONTAL DISTANCE IS AVAILABLE TO CHANGE DEPTH OF PIPE, USE 45° ELL FITTINGS TO TRANSITION CHANGE IN GRADE.
⑧ PVC MAIN LINE PIPE

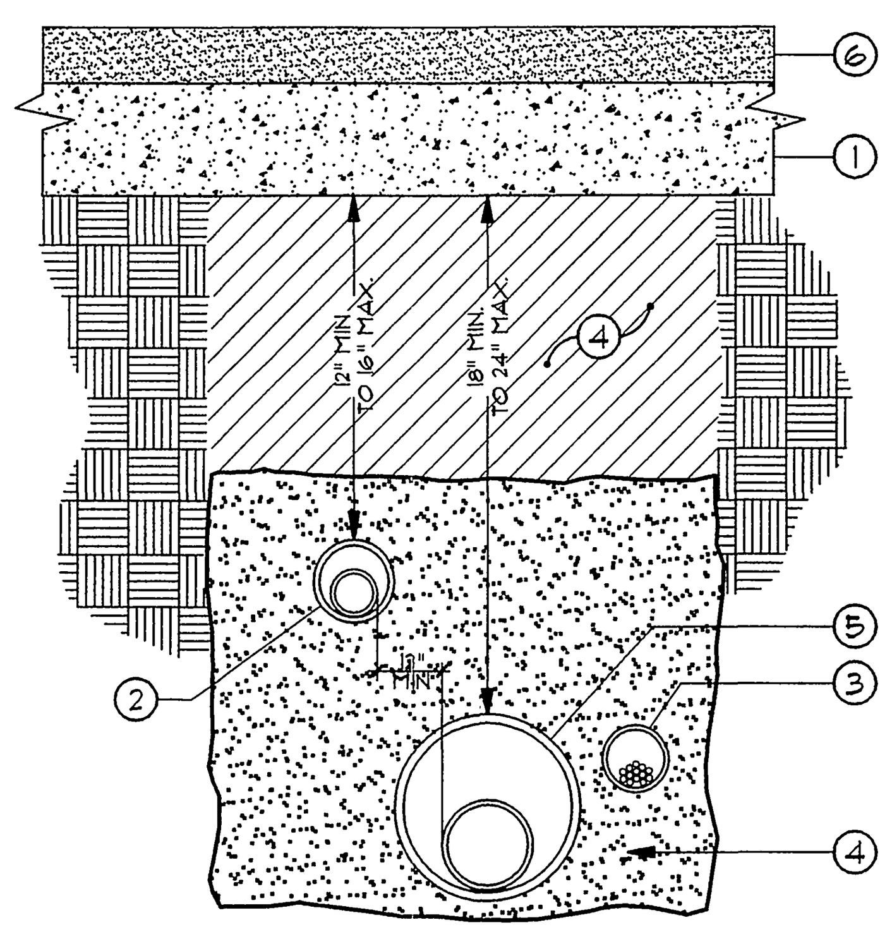
(B) CONTROL VALVE
INSIDE A CONCRETE VALVE BOX
NOT TO SCALE



① CONCRETE VALVE BOX WITH LOCKING NON-HINGED CAST IRON COVER, STENCIL STATION NUMBER ON LID.
② ELECTRIC REMOTE CONTROL VALVE
③ FINISH GRADE
④ PRESSURE SUPPLY LINE
⑤ PVC MALE ADAPTER (2 REQUIRED)
⑥ PVC PRESSURE SUPPLY LINE FROM BASKET STRAINER

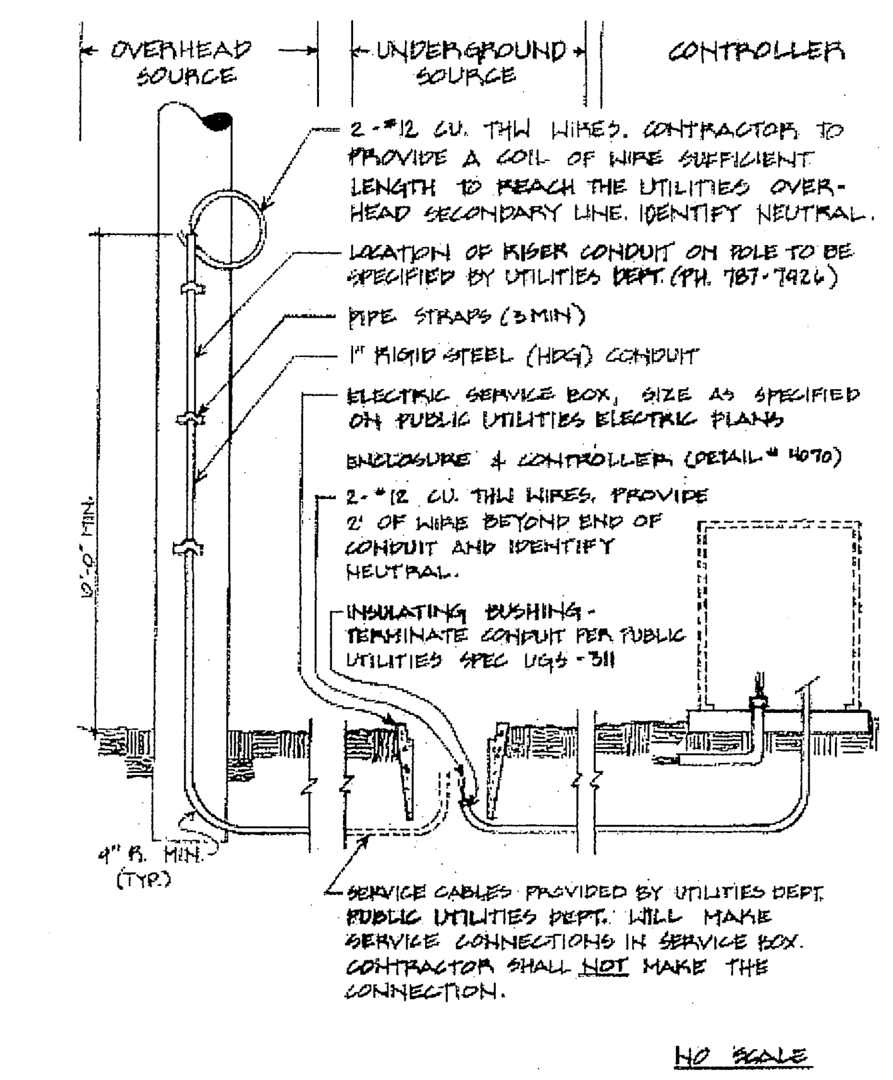
NOTE: VALVE SHALL HAVE A MINIMUM OF 4" CLEARANCE FROM THE BOTTOM OF THE VALVE BOX LID.

(E) MASTER VALVE
NORMALLY CLOSED, IN CONCRETE VALVE BOX
NOT TO SCALE

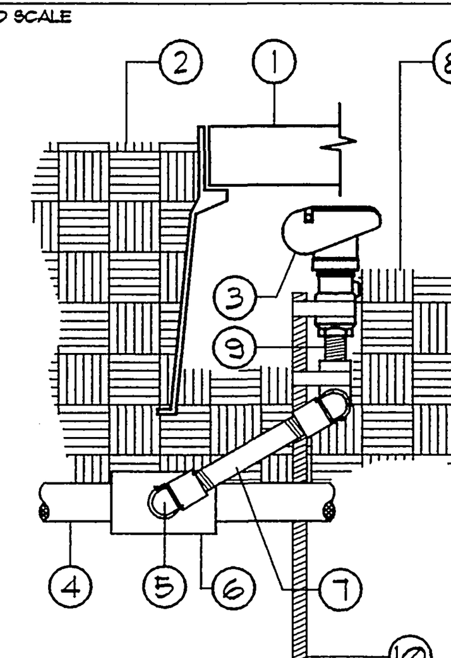


① SUBGRADE ② LATERAL LINE (IN SLEEVE) ③ CONTROL WIRES (IN CONDUIT) ④ CLEAN BACKFILL (SEE SPECIFICATIONS) ⑤ PRESSURE SUPPLY LINE (IN SLEEVE) ⑥ FINISH SURFACE

(H) TRENCHING
UNDER HARDSCAPE
NOT TO SCALE

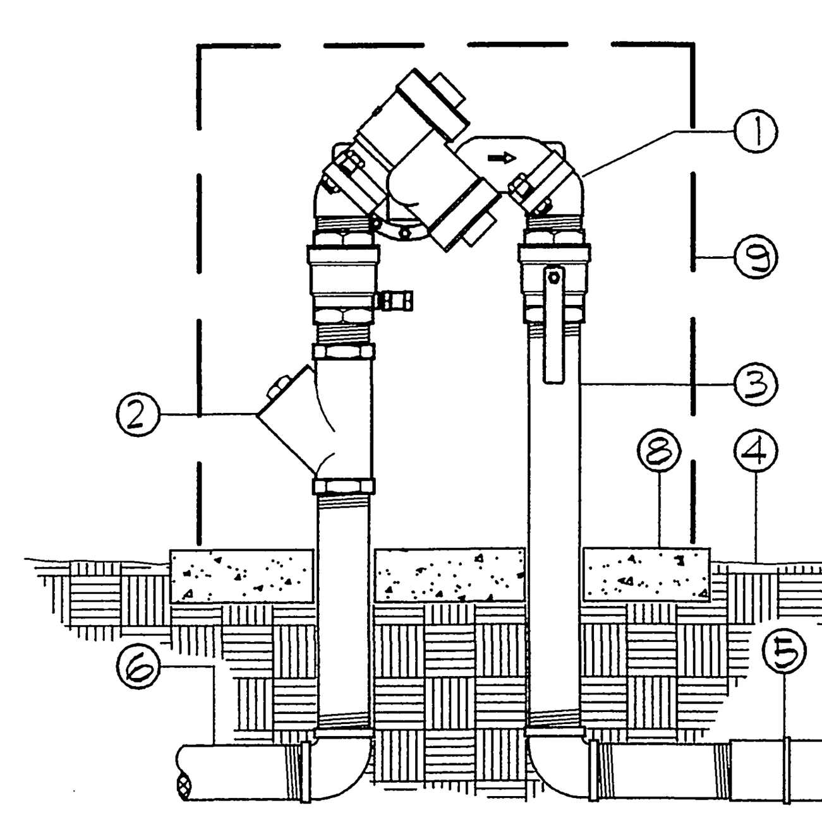


(J) NON METERED UTILITY SERVICE
(FOR CITY MAINTAINED AREAS)
NOT TO SCALE



① 10" ROUND PLASTIC VALVE BOX WITH LOCKING BOLT LID
② FINISH GRADE IN TURF
③ QUICK COUPLING VALVE
④ PRESSURE SUPPLY LINE
⑤ PVC STREET ELL (2 REQUIRED) SCH 80
⑥ PVC TEE
⑦ PVC SCH. 80 NIPPLE
⑧ FINISH GRADE IN SHRUB AREAS
⑨ THREADED NIPPLE SCH 80
⑩ SCH 40 GALV. 36" STAKE WITH (2) SPRINKLER TIES

(C) QUICK COUPLING VALVE
NOT TO SCALE



① REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
② WYE STRAINER
③ BRASS RISER
④ FINISH GRADE
⑤ THREADED BY SLIP COUPLING
⑥ FROM WATER SOURCE
⑦ PVC PRESSURE SUPPLY LINE, SEE SPECIFICATIONS
⑧ 6" THICK CONCRETE PAD
⑨ STAINLESS STEEL ENCLOSURE, SEE SPECIFICATIONS

(F) BACKFLOW PREVENTOR
'RP' TYPE (3/4" - 2") IN ENCLOSURE
NOT TO SCALE

City Business Tax Certificate No. 103549 Exp. Date 03-01-02 03

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PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1971 — Signature — 3/15/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ________

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Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: None
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
⚠	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY FS CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY ________ DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Details
Riverwalk Parkway Median

PROJECT NO. GI01-000
R-3561-ML
SHEET 23 OF 36
FILE NO.: ID-1

RiverWalk Parkway Medians PC - 4268 -M-

SECTION 02441 – IRRIGATION

PART 1 – GENERAL

1.01 STANDARD SPECIFICATIONS: The provisions of the "Standard Specifications for Public Works Construction", current edition, shall apply except as modified herein.

1.02 SCOPE: The Work of this Section shall consist of furnishing all labor, materials, equipment, appliances and services necessary for the execution and completion of all Irrigation Work as shown on the Plans and as described in the Specifications including, but not necessarily limited to, the following:
Provide complete operating irrigation systems;
Installation of new and refurbishment of existing irrigation systems as necessary to provide complete operating irrigation systems for all planting areas within the Work Limits;
120 volt electrical service for and connection to the controller;
Irrigation Controller within lockable Controller Enclosure as designated on the Approved Plans;
Coordination with Work of other Sections;
Testing;
Clean–up;
Replacements, Repairs, Guarantees and Warranty Work.

1.03 RELATED WORK:
Planting 02480

1.04 SUBMITTALS:

A. Materials List: Contractor shall submit a complete materials list for approval by the Park Projects Inspector prior to performing any Work. Catalog data and full descriptive literature must be submitted whenever the use of items different than those specified is requested. Notarized certificate must be submitted by plastic pipe and fitting manufacturer indicating that material complies with the Project Specifications, unless material has been previously approved, and used on other projects by City. Material list shall be submitted using the following format:

Item	Description	Manufacturer	Model No.
1	Pressure Supply Line	Lasco	Sch. 40
2	Lawn Head	Rainbird	2400
etc.	etc.	etc.	etc.

B. "Record" Prints:
1. Record accurately on one set of blue–line prints all changes in the Work constituting departures from the Plans, including changes in pressure and non–pressure line locations.
2. The changes and dimensions shall be recorded in a legible and workmanlike manner to the satisfaction of the Park Projects Inspector. Prior to final inspection of the Work, submit "record" Mylar prints to City for approval.
3. Dimension from two permanent points of reference (buildings, monuments, sidewalks, curbs, pavement, etc.). Data to be shown on "record" prints shall be recorded day–to–day as the project is being installed.
4. Show locations and depths of the following items:
a) Point of connection.
b) Routing of irrigation pressure lines (dimension maximum 100 feet along routing).
c) Ball valves.
d) Irrigation remote control valves.
e) Quick coupling valves.
f) Routing of control wires.
g) Related equipment (as may be directed).
5. Maintain record prints on site at all times.

1.05 INSPECTIONS:

A. Inspections will be required for:
1. Pressure test of irrigation main line.
2. Coverage test.
3. Final inspection/start of maintenance.
4. Final acceptance.

B. Inspection Requests: Contractor shall notify the Park Projects Inspector a minimum of 48 hours (two working days) in advance for all inspections including the following:
1. Pressure supply line installation and testing
2. System layout
3. Coverage tests
4. Final Inspection

C. Evidence of Inspection by Others: When inspections have been conducted by other than the Park Projects Inspector, Contractor shall show evidence of when and by whom these inspections were made.

D. Requirements for Inspection: No inspection is to commence without "record" prints available on the site. In the event Contractor calls for an inspection without up to date "record" prints, without completing previously noted corrections, or without preparing the system for inspection, the inspection may be canceled.

E. Closing in Uninspected Work: Do not allow or cause any of the Work of this Section to be covered up or enclosed until it has been inspected, tested and approved by the Park Projects Inspector.

F. Coverage test: When the irrigation system is completed, Contractor shall perform a coverage test in the presence of the Park Projects Inspector to determine if the water coverage for planting areas is complete and adequate. This test must be accepted by the Park Projects Inspector before planting may commence.

G. Hydrostatic test:
1. Prior to the installation of any valves, all pressure lines shall be tested under a hydrostatic pressure of 150 psi for a period of not less than two hours, with all ends of lines capped and the line fully charged with water after all air has been expelled from the line.
2. All hydrostatic tests shall be made in the presence of the Park Projects Inspector or Inspector's designated representative. No pressure line shall be backfilled until it has been inspected, tested, approved in writing, and the mainline and valve locations have been noted on the "record" prints.
3. Contractor shall furnish the necessary force pump and all other test equipment, and shall perform the test.

1.06 TURNOVER ITEMS:

A. Controller Charts:
1. "Record" prints must be approved by the Park Projects Inspector before charts are prepared.
2. Provide one controller chart for each automatic controller. The chart shall show the entire area covered by the controller, preferably in a single sheet. The chart shall be a reduced copy of the approved "record" print. Reduce the print to a size that is the maximum dimensions that will fit within the controller door without folding. If the controller sequence is illegible at this reduction scale, the chart may be provided as a "multi–sheet" chart to provide adequate legibility.
3. Each control station on the Chart shall be marked with a different color to show its area of coverage.
4. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being minimum 20 mils in thickness. The chart shall be installed in the controller enclosure using Velcro fasteners, and three different color grease pencils (red, black and blue) shall be provided in the enclosure for maintenance notations on the chart.
5. Controller charts shall be completed prior to the final acceptance inspection.

B. Operation and Maintenance Manuals: Within a minimum of 14 calendar days prior to acceptance of construction, prepare and deliver to the Park Projects Inspector all required descriptive materials, properly prepared in two individually bound copies of the operation and maintenance manual. The manual shall describe the material installed and shall be in sufficient detail to permit operating personnel to identify, operate, and maintain all equipment. Spare parts lists and related manufacturer's information shall be included for each equipment item installed. Each complete, bound manual shall include the following information:
1. Index sheet stating Contractor's address and telephone number, including names and addresses and telephone numbers of local manufacturer's representatives.
2. Complete operating and maintenance instructions on all major equipment.

C. Materials to be furnished: The following items shall be supplied as part of this Contract and shall be turned over to the Park Projects Inspector at the conclusion of the Project at the Final Acceptance Inspection:
1. 4% additional irrigation heads of each type and spray pattern shown.
2. Two (2) special tools/wrenches for disassembly and adjustment of each type irrigation equipment/heads installed that require such special tools/wrenches.
3. Two keys for each type of automatic controller.
4. Two quick coupler "quills" with a 3/4" bronze hose bib, bent nose type with hand wheel and two quick coupler locking lid keys.
5. One valve box cover key.
6. "Record" prints.
7. Remove and turn over backflow device valve handles.
8. Documentation of Water Department's inspection and acceptance of backflow device.

1.07 GUARANTEE:

A. General: The entire irrigation system, including all Work done under this Contract, shall be guaranteed against all defects and fault of material and workmanship for a period of one (1) year following Final Acceptance of the Work as documented by the Notice of Completion filed with the Riverside County Recorder's Office. All materials used shall carry a manufacturer's guarantee of one (1) year. Should any problem with the irrigation system be discovered within the guarantee period, it shall be corrected by Contractor at no additional expense to City within fourteen (14) calendar days of receipt of written notice from City.

B. Form of Guarantee: Guarantee shall be submitted on Contractors own letterhead as follows:

GUARANTEE FOR IRRIGATION SYSTEM

PROJECT:

LOCATION:

We hereby guarantee the irrigation system we have furnished and installed against defects in materials and workmanship, ordinary wear and tear and unusual abuse, or neglect excepted, and that the Work has been completed in accordance with the Plans and Specifications. We agree to repair or replace any or all of the Work, together with any other adjacent Work which may be displaced by so doing, that may prove to be defective in its workmanship or materials within a period of one (1) year after the date the Notice of Completion for the above named Project is filed with the County Recorder by the City of Riverside, California, at no additional cost to City. We shall make such repairs or replacements within 14 calendar days following written notification by City. When the immediate repair or replacement of the Work is necessary to ensure the public safety and welfare, which would be endangered by continued usage of the facility, such circumstance will be deemed an operational emergency. In the event of such an emergency, after City contacts our firm and after authorizing 24 hours to initiate repairs, if we fail to initiate and diligently complete such repairs in a timely manner, the Director may direct City forces to perform such functions as the Director may deem necessary to correct the Work and immediately place the facility back in operational condition. If such procedure is implemented, we shall bear all expenses incurred by City. In all cases, the judgment of the Director shall be final in determining whether an operational emergency exists. In the event of our failure to make such repairs or replacements within the time specified after receipt of written notice from City (other than an operational emergency), we authorize City to proceed to have said repairs or replacements made at our expense and we will pay the costs and charges therefor upon demand.

PRINTED NAME & TITLE:

SIGNATURE:

ADDRESS:

PHONE: (____)
(Area Code) Number

C. Operational Instruction: After the system has been completed, Contractor shall instruct the Park Projects Inspector in the operation and maintenance of the system and shall furnish a complete set of operating instructions.

D. Trench Settlement: Any settling of trenches which may occur during the one–year period following acceptance shall be repaired to City's satisfaction by Contractor without any additional expense to City. Repairs shall include the complete restoration of all planting, paving or other improvements of any kind which are damaged as a result of the Work.

PART 2 – MATERIALS

2.01 GENERAL: All materials shall conform with Section 212 – 2 IRRIGATION SYSTEM MATERIALS of the Standard Specification except as modified herein.

2.02 PIPE AND FITTINGS:

A. General:
1. Pressure supply lines 2 inches in diameter and up to 8 inches in diameter shall be either Class 315 solvent weld PVC or Class 200 rubber gasket type PVC. Solvent weld and ring type pipe shall not be used together on the same pressure supply line.
2. Pressure supply lines 1–1/2 inches in diameter and smaller shall be minimum schedule 40 PVC.
3. Non–pressure lines shall be minimum Class 200 PVC.

B. Steel Pipe: Amend Standard Specifications Section 212–2.1.2 Steel Pipe to read:
"All steel pipe shall be hot–dipped galvanized,....", and add: "All fittings for steel pipe shall be 250 pound rated galvanized malleable iron, banded pattern. Pipe sizes indicated on the Plans are nominal inside diameter, unless otherwise noted."

C. Plastic Pipe:
1. Add the following to Standard Specifications Section 212–2.1.3 Plastic Pipe for Use with Solvent Weld Socket or Threaded Fittings:
"All plastic pipe shall bear the following markings: manufacturer's name, nominal pipe size, schedule or class, type of material, pressure rating in PSI, NSF seal of approval, and date of extrusion."
2. Amend Standard Specifications Section 212–2.1.3 Plastic Pipe for Use with Solvent Weld Socket or Threaded Fittings to read:
"All plastic pipe fittings shall be standard weight schedule 40 and shall be injection molded of an improved PVC fitting compound. All threaded plastic fittings shall have injection molded threads. No cut threads will be accepted on PVC pipe and fittings. All tees and ells shall be manufactured in injection molds that are sidegated. All threaded nipples shall be standard weight schedule 80 with molded threads. "
3. Amend first sentence of Standard Specifications Section 212–2.1.4 Plastic Pipe for Use with Rubber Ring Gaskets to read:
"All rubber gasket PVC pipe, couplings, and fittings shall conform to ASTM D 2241 Type 1, Grade 1, 2000–PSI design stress"; and add the following to the Section: "Couplings, rubber gaskets, and fittings shall be as approved by the pipe manufacturer. Ring–type rubber gasket couplings shall permit a five (5) degree deflection of the pipe at each coupling (2–1/2 degrees each side) without ex–filtration or infiltration, cracking or breaking."

D. Asbestos Cement Pipe (ACP): Is not approved for use on City projects.

2.03 VALVES AND VALVE BOXES:

A. Valves:
1. Ball Valves: All ball valves shall be bronze bodied, capable of withstanding a minimum working pressure of not less than 150 psi.
2. Manual Control Valves: Add the following to Standard Specifications Section 212–2.2.3 Manual Control Valves: Anti–siphon–type valves shall be all bronze with swivel–type replaceable seating members and an approved vacuum breaker as an integral part of assembly.
3. Quick–Coupling Valves: Add the following to Standard Specifications Section 212–2.2.6 Quick Coupling Valves and Assemblies: Quick coupling valves shall have locking vinyl cover and shall be 1" in size.
4. Remote Control Valves: Add the following to Standard Specifications Section 212–2.2.4 Remote Control Valves:
a) Valves shall be spring–loaded, self–cleaning, packless diaphragm activated, of a normally closed type.
b) Valve solenoid shall be corrosion–proof and constructed of stainless steel molded in epoxy to form one integral unit, and shall be 24 volt A.C., 2.0 watt maximum (2" and smaller valves).
c) Valve shall close against flow without chatter and with minimum closing surge pressure (minimum 5 seconds closing time per valve).
d) Valve shall be completely serviceable in the field without removing valve body from line.

B. Boxes:
1. Concrete Valve Boxes: Add the following to Standard Specifications Section 212–2.2.7 Valve Boxes: Remote control valve boxes shall be rectangular concrete boxes with non–hinged locking cast–iron covers. Valve station number shall be stenciled in two–inch–high (2") numerals on cover using epoxy resin base paint of a contrasting color. Ball valve boxes shall be round concrete boxes with non–hinged cast iron covers marked either "Ball Valve" or "G. V." with letters cast or tooled in the cover.
2. Plastic Valve Boxes: (For use on Drip Irrigation Systems only)
a) General: Valve boxes and covers shall be fabricated from a durable plastic material resistant to weather, sunlight and chemical reactions. The covers shall be secured with a hidden latch mechanism or bolts. The cover and box shall be capable of sustaining a load of 1,500 pounds. Valve box extensions shall be by the same manufacturer as the valve box. The box covers shall be factory embossed for the designated use and stenciled by the installer with 2" high letters in a contrasting color as noted below. Boxes and covers shall be as manufactured by AMETEK or City approved equal.
b) Rectangular Plastic Boxes and Covers: Shall be a minimum of 12" wide x 18 long", with depths as necessary to protect the valve and provide the clear dimensions as detailed and/or specified. The covers shall be embossed with words or initials to identify the use for the box (e.g. "Flush Valve" or the letters "F.V.", and Air Relief Valve or the letters "A.R.V.") as noted on the Plan.
c) Round Plastic Boxes and Covers: Shall be minimum 12" diameter, round boxes with covers embossed with words to identify the use for the box (e.g. "Quick Coupler Valve" or the letters "Q.C.V.") and shall be marked as noted on the Plans

2.04 BACKFLOW PREVENTION DEVICE: Add the following to Standard Specifications Section 212–2.3 Backflow Preventer Assembly: The backflow prevention unit shall be a reduced pressure type vacuum breaker of the size, manufacture, and model number as indicated on the Plans. If not indicated, the device shall be the same size as the water service and the manufacturer and model number shall be as approved by the Park Projects Inspector.

2.05 IRRIGATION HEADS: All irrigation heads shall be as shown on the Plans and shall conform with Section 212–2.4 Sprinkler Equipment of the Standard Specifications. All heads used on the same control valve shall be matched precipitation rate heads. All heads used on turf shall be minimum 6" pop–up types; all heads used in shrub areas shall be minimum 12" pop–up types.

2.06 ELECTRICAL MATERIALS:

A. Conduit: Amend Standard Specifications Section 212–3.2.1 Conduit to read: All conduit below grade shall be schedule 40 PVC of sufficient size to carry all proposed wiring. Conduit above grade shall be galvanized steel per the Standard Specifications. Low Voltage (24 volt) wiring shall be provided with a separate conduit/sleeve from both high voltage wiring (110/120 volt and higher) and the irrigation mainline sleeve.

B. Electrical Service: Materials for electrical service shall comply with the standard specifications, governing utility agency standards, and requirements of all applicable codes. All controllers serving landscape areas that will not being turned over to the City for maintenance, shall be powered through a metered electrical service. Controllers serving landscape areas to be maintained by the City shall be powered through a non–metered electrical service.

C. Wire: Add the following to Standard Specifications Section 212–3.2.2 Conductors: "All low voltage conductors shall be 14 gauge for control and 12 gauge for common wires. All low voltage common wire shall be white with a colored stripe. Stripe color shall be different for each controller installed. All low voltage control wire shall be of one color other than white or green. A different color control wire shall be used for each controller installed."

2.07 CONTROLLER UNIT: Add the following to Standard Specifications Section 212–3.3 Controller Unit:

A. Controller: Shall be wall mounted type, as indicated on the Plans, with a heavy duty watertight case and locking hinged cover, installed within a lockable steel enclosure.

B. Controller Enclosure: Shall be metal, sized to fit the controller and the other electrical components as required per Standard Detail 4060, Le Meur – Type V, Strongbox – sized to fit unit, or City approved equal.

PART 3 – EXECUTION

3.01 GENERAL: All Work shall conform with Section 308 LANDSCAPE AND IRRIGATION INSTALLATION of the Standard Specifications except as modified herein. No Work of this Section other than sleeving under pavement shall commence prior to the completion and acceptance of all Grading Work.

Add the following to Standard Specifications Section 308–5.1 General:

A. Irrigation System Design & Water Supply:
1. The irrigation system design is based upon an available water pressure and gallonage as noted on plans. Contractor shall verify the size of the existing water supply/meter and the existing operating water pressure at the water supply location shown on the Plans prior to starting construction. Contractor shall notify the Park Projects Inspector in writing of any discrepancies noted. Failure to provide such written notification may cause Contractor to provide for modifications to the irrigation system as necessary to provide for a fully operational system providing 100% coverage at the operating pressure available, all at no additional cost to City.
2. Connection to, or the installation of, the water supply shall be at the location shown on the Plans. Minor changes caused by actual site conditions shall be made at no additional cost to City.

B. Electrical Service: Contractor shall provide either a metered (for areas to be maintained by other than the City, such as an HOA) or non–metered electrical service (for areas to be maintained by the City) as required, and shall make the final 120 V connection to the irrigation controller.
C. Code Requirements: Prior to all Work of this Section, Contractor shall carefully inspect the installed Work of all other trades and verify that all such Work is complete to the point where this installation may properly commence. Verify that the irrigation system may be installed in strict accordance with all pertinent codes and regulations, the original design, the referenced standards, and the manufacturer's recommendations.

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

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PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No 1972
Signature
Exp. 2/28/04
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

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TheCollaborativeWest

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE:
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS	APPR.	DATE
⚠	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY TCW CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		3/16/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Irrigation Specifications

PROJECT NO. G101-000
R-3561-ML
SHEET 24 OF 36
FILE NO.: IS-1

RiverWalk Parkway Medians PC - 4268 -M

In the event any equipment or methods indicated on the Plans or in the Specifications is in conflict with local codes, immediately notify the Park Projects Inspector prior to installing the Work. If this notification is not provided, Contractor shall assume full responsibility for the cost of all revisions necessary to comply with all codes.

D. Grades: Contractor is to keep within the specified material depths with respect to finish grade. Failure to obtain specified material depths may subject Contractor to adjusting the grades or depth of lines until acceptable depths of cover are achieved, all as directed by the Park Projects Inspector and at no additional cost to City.

E. Coordination with Work of Other Trades: Make all necessary measurements in the field to ensure precise fit of items in accordance with the original design. Contractor shall coordinate the installation of all irrigation materials with all other Work. Special attention shall be given to coordination of piping locations versus tree and shrub locations and sleeve locations versus pavement installation to avoid conflicts.

F. Maintain Record Prints: Contractor shall maintain "record" prints on site at all times. Upon completion of the Work, transfer all "record" information on changes and dimensions to reproducible Mylar prints. The changes and dimensions shall be recorded in a legible and workmanlike manner, to the satisfaction of the Park Projects Inspector.

3.02 TRENCHING AND BACKFILLING:

A. Trenching:
1. Add the following to Standard Specifications Section 308–2.2 Trench Excavation and Backfill: Dig trenches and support pipe continuously on bottom of ditch. Where lines occur under paved areas, depth dimensions shall be considered below subgrade.
2. Amend Standard Specifications Section 308–2.2, Subparagraph 2 Waterlines continuously pressurized) to read: Water lines continuously pressurized – minimum 18 inches, maximum 24 inches. (These measurements are to be from subgrade elevation for piping under pavement.)
3. Amend Standard Specifications Section 308–2.2, Subparagraph 3 Lateral sprinkler lines) to read: Lateral irrigation lines – minimum 12 inches and maximum 16 inches. All main lines and lateral lines running parallel to other such lines shall have a minimum horizontal separation of 12".
4. Add the following to Standard Specifications Section 308–2.2 Trench Excavation and Backfill: Where it is necessary to excavate adjacent to existing trees, Contractor shall avoid injury to trees and tree roots. Excavation in areas where 2–inch and larger roots occur shall be done by hand. All roots 2 inches and larger in diameter shall be tunneled under and shall be heavily wrapped with wet burlap to prevent scarring or drying. Where trenching machine is run close to trees having roots smaller than 2 inches in diameter, the wall of the trench adjacent to the tree shall be hand trimmed, making a clean cut through the roots. Roots 1 inch and larger in diameter shall be painted with two coats of tree seal or approved equal. Trenches adjacent to trees shall be closed within 24 hours.
5. Permanent Resurfacing: Add the following to Standard Specifications Section 308–5.1 General: All surface improvements damaged or removed as a result of Contractor's operations shall be reconstructed by Contractor to the same dimensions, except for pavement thickness, and with the same type materials used in the original Work. Trench resurfacing shall be 1 inch greater in thickness than existing pavement. Concrete pavement shall be removed and replaced in "full panels" with no horizontal dimension less than five (5) feet. Contractor shall review the planned limits and lines of concrete removal and replacement with the Park Projects Inspector prior to sawcutting for Removal Work.

B. Backfill:
1. Amend Standard Specifications Section 308–2.2 Trench Excavation and Backfill to read: " Backfill shall be uniformly tamped in 4–inch layers under and around the pipe for the full width of the trench and the full length of the pipe. Materials shall be sufficiently damp to permit thorough compaction, free of voids. Backfill shall be compacted to dry density equal to adjacent undisturbed soil and shall conform to adjacent grades."
2. Add the following to Standard Specifications Section 308–2.2 Trench Excavation and Backfill:
a) Flooding in lieu of tamping is not allowed without specific prior written approval of the Park Projects Inspector.
b) Under no circumstances shall the wheels of any vehicle not designed for the purpose of soils compaction be used to compact backfill.

3.03 PIPE INSTALLATION:

A. General: Add the following to Standard Specifications Section 308–5.2.1 Irrigation Pipeline Installation, General:
1. Piping under existing pavement may be installed by jacking, boring, or hydraulic driving. However, no hydraulic driving is permitted under asphaltic concrete pavement.
2. Cutting or breaking of existing pavement is not permitted except as approved in writing by Park Projects Inspector. When approved, all necessary repairs and replacements will be made at no additional cost to City.
3. Carefully inspect all pipe and fittings before installation, removing all dirt, scale and burrs and reaming; install pipe with all markings up for visual inspection and verification.
4. Contractor shall install concrete thrust blocking per the manufacturer's recommendations at all changes of direction and terminal points of pressure pipe.
5. Parallel lines shall not be installed directly over one another. Provide a minimum of 12" horizontal separation for all parallel lines.
6. For plastic–to–metal connections, work the metal connections first. Use a non–hardening pipe dope on all threaded plastic–to–metal connections, except where noted otherwise.
7. All piping under pavement shall be sleeved using schedule 40 PVC sleeves. Each line shall be separately sleeved.
8. Do not install multiple assemblies ("manifold") on plastic lines. Provide each equipment assembly (e.g. RCV, quick coupler, ball valve, head, backflow device) with its own connection to its service line.

B. Plastic Pipe: Add the following to Standard Specifications Section 308–5.2.3 Plastic Pipeline:
1. Exercise care in handling, loading, unloading and storing plastic pipe and fittings, store plastic pipe and fittings under cover until ready to install; transport plastic pipe on a vehicle with a bed long enough to allow pipe to lay flat, avoid undue bending and any concentrated external load.
2. 360° applicators shall be used to apply primer and solvent on pipe sizes 2–1/2 inches and larger.

3.04 BACKFLOW INSTALLATION: Add the following to Standard Specifications Section 308–5.3 Installation of Valves, Valve Boxes, and Special Equipment: Install backflow assemblies at locations approved in the field by the Park Projects Inspector and at heights required by local codes.

3.05 VALVE AND VALVE BOX INSTALLATION:

A. Valves:
1. Amend Standard Specifications Section 308–5.3 Installation of Valves, Valve Boxes, and Special Equipment to read: Valves shall be the same size as the pipeline in which valves are installed unless otherwise specified on the Plans. Valves shall be installed a minimum of three feet in horizontal distance apart, each with its own connection to the pressure main line.
2. Amend Standard Specifications Section 308–5.3 Installation of Valves, Valve Boxes, and Special Equipment to read: Install quick couplers within valve boxes per the Park and Recreation Department's standards at maximum 75' o.c., and maximum 50' from ends of all planting areas.
3. Add the following to Standard Specifications Section 308–5.3 Installation of Valves, Valve Boxes, and Special Equipment: Valves shall be installed in shrub areas whenever possible. No valves or valve boxes other than quick coupler valves shall be installed within a designated turf area.

B. Valve Boxes:
1. General: Valve boxes shall be installed with a minimum of 2" vertical clearance between the box and all pipelines and valve components and/or special equipment within the box. Valve boxes found resting on either the valve, special equipment or pipelines shall be cause for rejection of the installation.
2. Uses:
a) Concrete Valve Boxes:
I) Rectangular: Unless noted otherwise on the Plans, each remote control valve, all wire splices, and each master control valve shall be installed within a rectangular concrete valve box.
ii) Round: Unless noted otherwise on the Plans, each quick coupler valve (except where located within the infield of a baseball/softball field) and each ball valve shall be installed within a round concrete valve box.
c) Plastic Valve Boxes: (for drip irrigation systems only)
I) Rectangular: Unless noted otherwise on the Plans, each drip irrigation flush valve, and each air relief valve shall be installed within a rectangular plastic valve box.
ii) Round: Unless noted otherwise on the Plans, ball valves and/or gate valves shall be installed within a round plastic valve box.

3.06 IRRIGATION HEAD INSTALLATION: Amend Standard Specifications Section 308–5.4.1 Sprinkler Head Installation and Adjustment, General to read: Irrigation heads shall be installed as designated on the Plans and per the Park and Recreation Department's standard details. Upon coverage testing of the system if 100% coverage is not afforded by the system as designed, additional heads shall be added as necessary to achieve 100% coverage.

3.07 CONTROLLER INSTALLATION: Add the following to Standard Specifications Section 308–5.5 Automatic Control System Installation:

A. Controller Installation: The controller location, as shown on the Plans, is diagrammatic. The final location of the controller(s) shall be as approved by the Park Projects Inspector before installation. Typical controller location shall be mid–block 3' behind the sidewalk. If replacement of existing controller(s) is a part of the project, Contractor shall remove the existing controller(s) and replace with the replacement unit as specified. Contractor shall install all conduit runs, 120V wire and cable, and 24V control wire, as necessary for a complete and operational system.

B. Controller Enclosure:
(1) Conventional Type: The controller shall be wall mounted within a LeMeur vandal resistant enclosure, unless noted otherwise on the Plans. Controller enclosure shall be located in shrub areas and/or adjacent to other hardscape items. Enclosure shall be painted with two coats of paint, color as approved, and shall have the service address painted in a contrasting color on the enclosure door; submit color samples. A 4" thick concrete slab for maintenance access shall be provided, size approximately 15 sq. ft., line, grade and dimensions as directed by the Park Projects Inspector.

B. Coordination of Controller Location with Various Service Connections: Contractor shall coordinate the electrical service with the approved controller location. Contractor shall verify the locations of 120V power prior to installing controller(s) and shall coordinate final assembly mounting locations with the needed utilities. Contractor shall furnish and install grounding rods and ground wires for each controller. Ground rods shall be installed a minimum of eight feet from their respective controller housing and the ground wire run back to the controller.

C. Controller Connections: Contractor shall inspect, test, and certify all low voltage control wire splices and ground rod installations as applicable. Any repairs as necessary to provide properly operating wiring are to be made by Contractor at no additional cost to City. After repairs are satisfactorily completed, Contractor shall connect the ground wires to the ground rods and the controller(s).

D. Controller Programming: Following establishment of the turf, the irrigation system shall be programmed to operate during the periods of minimal use of the Project area (i.e., 11:00 p.m. through 6:00 a.m.).

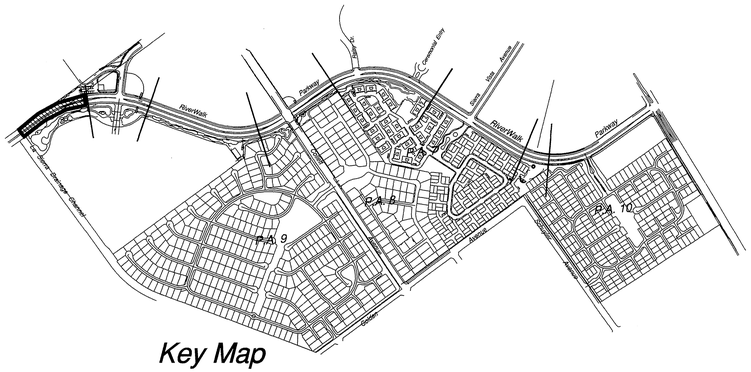
3.08 WIRING:

A. Wiring: Add the following to Standard Specifications Section 308–5.5 Automatic Control System Installation: 1. All splice connections shall occur in a valve box. All wire runs between the valve and the controller shall be a continuous run with no splices unless noted otherwise on the Plans.
2. All low voltage wiring splices shall be made–up as soldered connections, wrapped with a minimum of two (2) layers of electrical tape and sealed with Scotch–coat. Scotch–lok, Uni–pack, Penn–tite, or other similar type connectors are not acceptable.

3.09 FINISHING AND TESTING: Amend Standard Specifications Section 308–5.6.2 Pipeline Pressure Test to read: Pressure test the mains – minimum 2 hours at 150 PSI. Add the following to Standard Specifications Section 308–5.6.2 Pipeline Pressure Test: Center–load all plastic pipe prior to pressure testing. The entire system shall be operating properly before any planting operations commence.

3.10 COMPLETION CLEANING: Add the following to Standard Specifications Section 308 LANDSCAPE AND IRRIGATION INSTALLATION: Upon completion of the Work, Contractor shall smooth all ground surfaces, remove excess materials, rubbish, debris, etc., sweep adjacent streets, curbs, gutters, walkways and trails, and remove construction equipment from the premises.

END OF SECTION



Key Map
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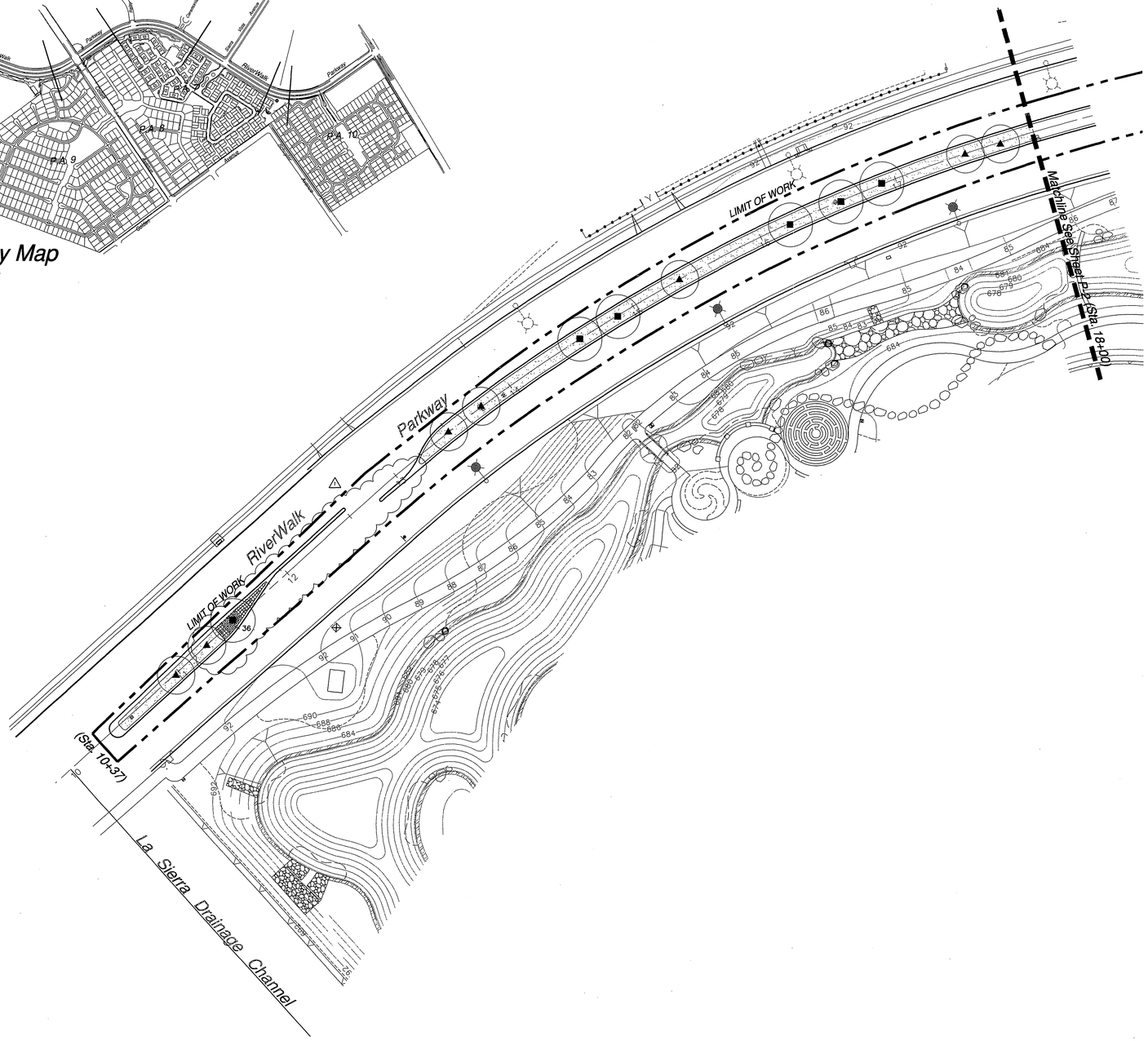

Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
TREES			
■	Platanus racemosa	California Sycamore	15 gal; Standard 36" Box; Standard
▲	Podocarpus gracilior	Fern Pine	24" box; Standard

Symbol	Botanical Name	Common Name	Size & Comments
Groundcovers			
⊙	Dietes bicolor	Fortnight Lily	5 gal @ 30" o.c.
○	Rhaphiolepis indica 'Clara'	India Hawthorn	5 gal @ 24" o.c.
	Turf – Hydroseeded tall Fescue (Master Association)		

Notes:

- Root Barriers:
  The Contractor is to provide root barriers for all trees. Root barrier depth to be min. 24" and run continuous along curb for a minimum of 10' from the center of the tree in both directions.
- Arbor Guards:
  Install "Deep Root" arbor guards to all trees planted in turf areas installed per manufacturer recommendations.

Grading Notes:

- Grading and drainage are per Canty Engineering approved street and storm drain Plans #D–678. Provide a minimum 2% grade to all catch basins.

0 20 40 80
SCALE: 1" = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-02

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1971 — PAUL HADEN — Signature — Exp. 2/28/04 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

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www.theCollaborativeWest.com
TheCollaborativeWest

SCALE: 1" = 40'-0" BENCH MARK
DATE: Feb. 26, 2002

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	Turn Lane Revision per Client Request		03/21/02

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

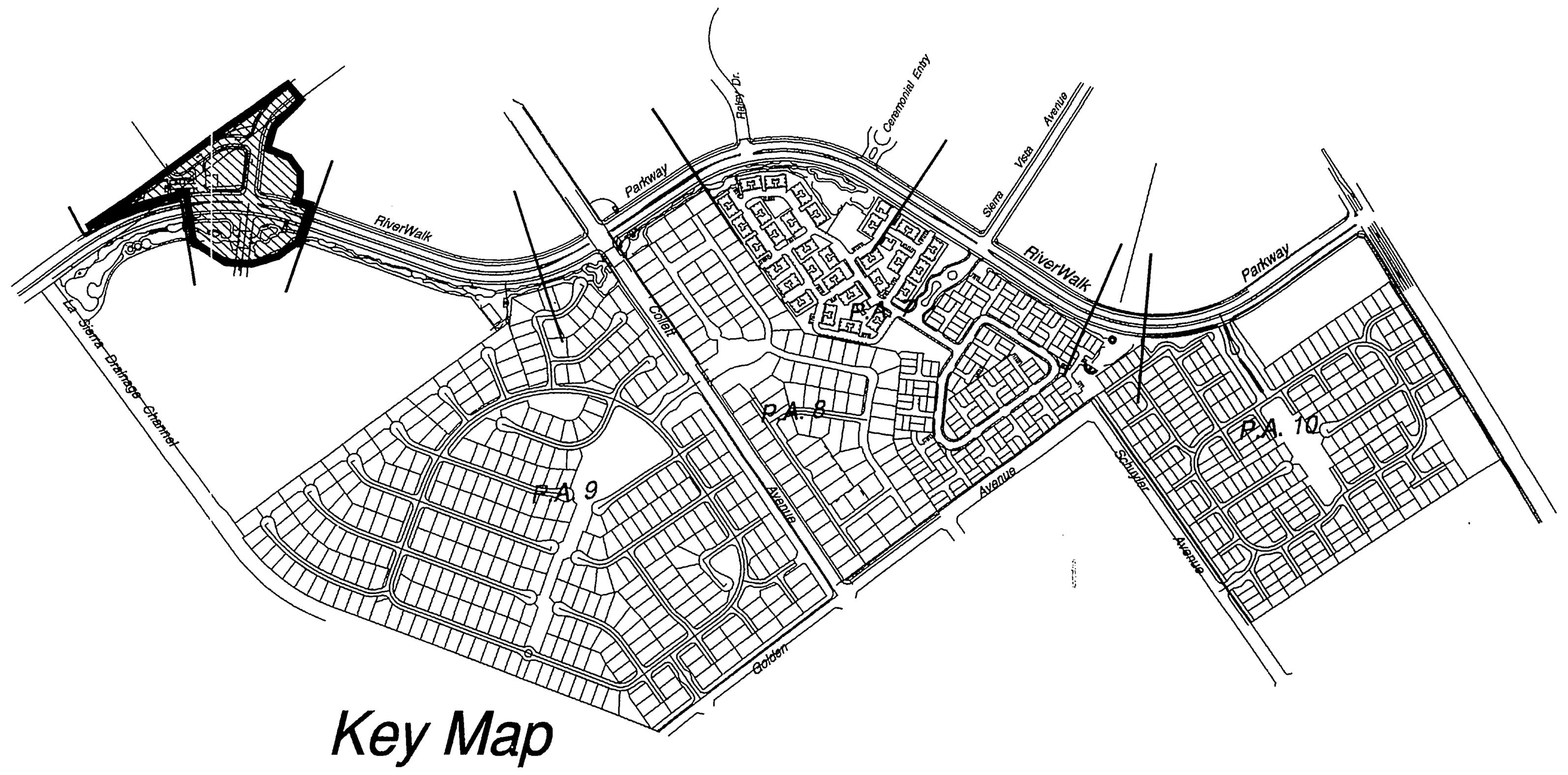
APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE

Planting Plan
Riverwalk Parkway Median
Sta. 10+37 - 18+00

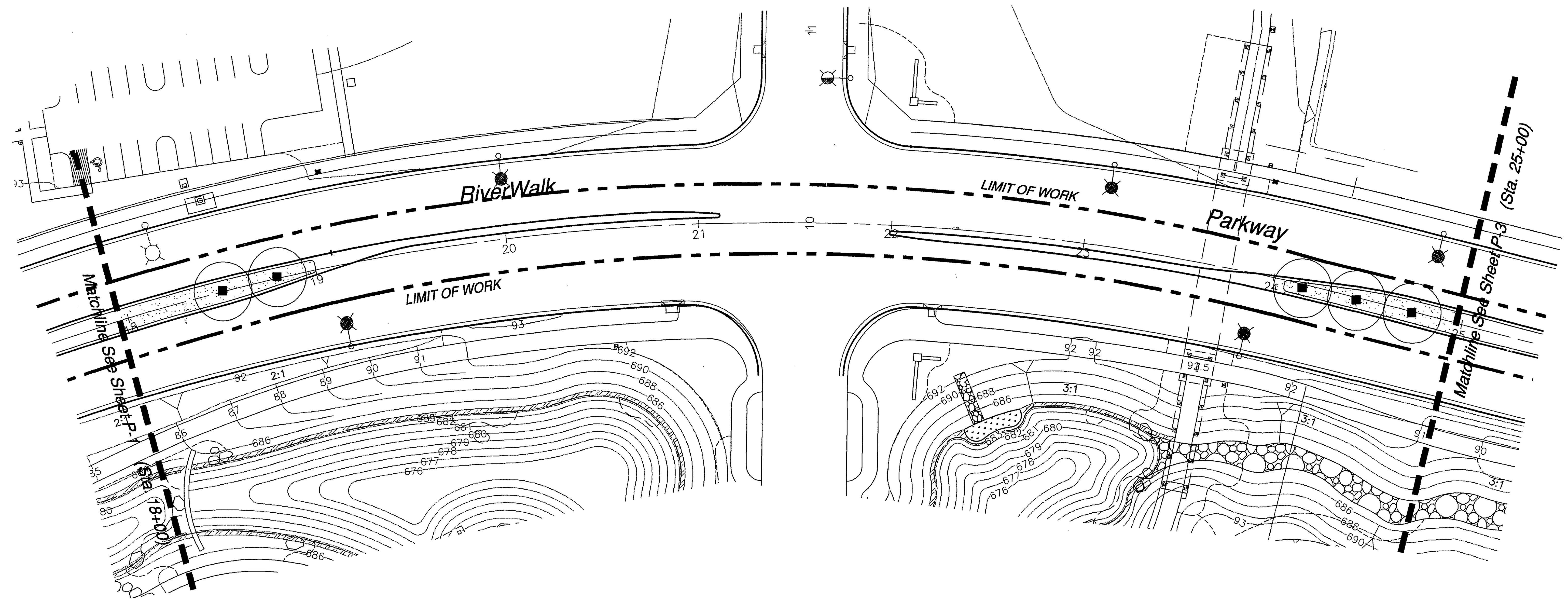
PROJECT NO. GI01-000
R-3561-ML
SHEET 26 OF 36
FILE NO.: P-1

RiverWalk Parkway Medians PC - 4268 -M1



Key Map

NTS



Planting Legend

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▲	*Podocarpus gracilior*	Fern Pine	24" box; Standard

Symbol	Botanical Name	Common Name	Size & Comments
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⊙	*Dietes bicolor*	Fortnight Lily	5 gal @ 30" o.c.
○	*Rhaphiolepis indica 'Clara'*	India Hawthorn	5 gal @ 24" o.c.
[turf pattern]	Turf – Hydroseeded tall Fescue (Master Association)		

Notes:

- Root Barriers:
  The Contractor is to provide root barriers for all trees. Root barrier depth to be min. 24" and run continuous along curb for a minimum of 10' from the center of the tree in both directions.
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  Install "Deep Root" arbor guards to all trees planted in turf areas installed per manufacturer recommendations.

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0 20 40 80

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City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

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REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No. 1972
Signature
3/15/02
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ______

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RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: 1" = 40'-0"
BENCH MARK
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MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	[signature]	3/19/02
PLANNING DEPT.	[signature]	3/15/02
PARKS DEPT.	[signature]	03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan
Riverwalk Parkway Median
Sta. 18+00 - 25+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 27 OF 36
FILE NO.: P-2

RiverWalk Parkway Medians PC - 4268 -M1

Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
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Groundcovers			
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Turf – Hydroseeded tall Fescue (Master Association)

Notes:

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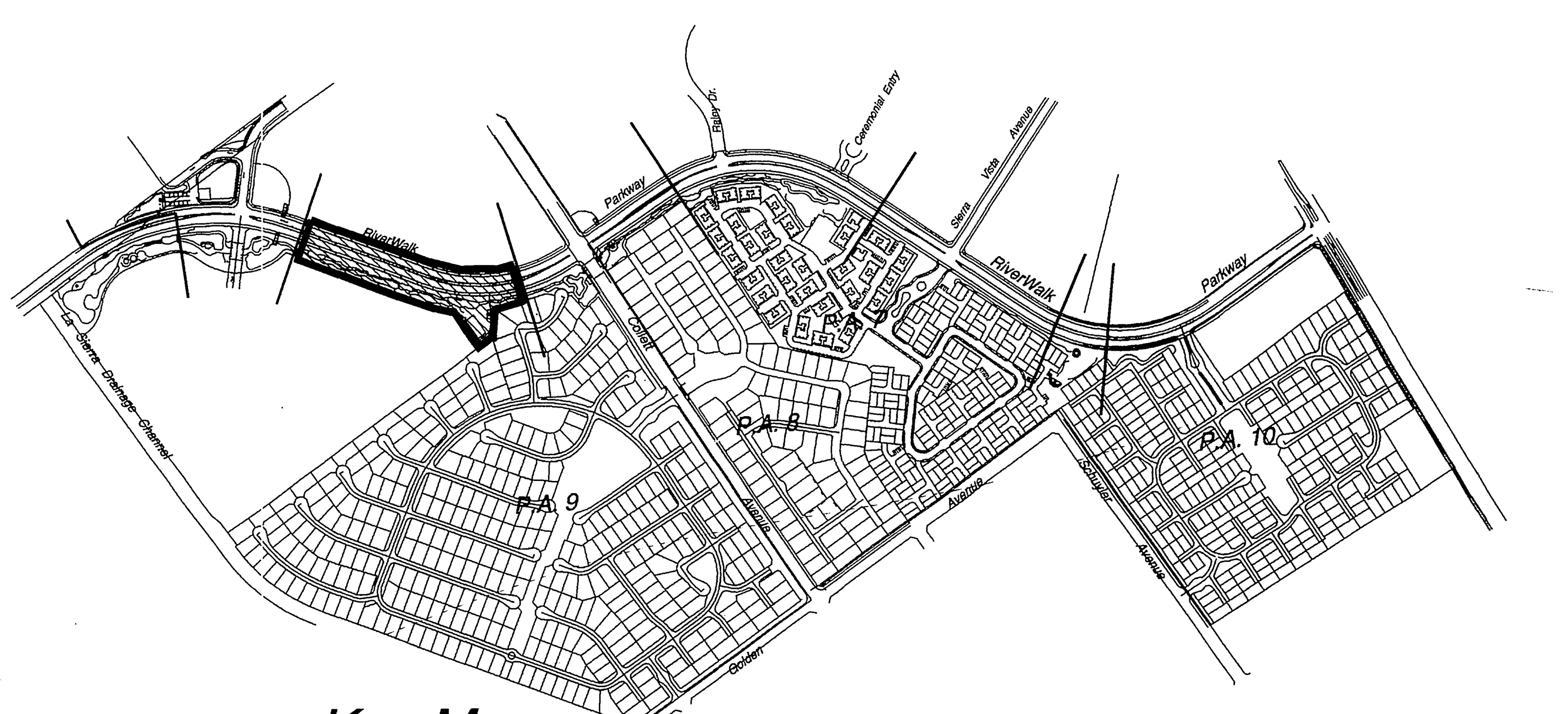
  Install "Deep Root" arbor guards to all trees planted in turf areas installed per manufacturer recommendations.

Grading Notes:

- Grading and drainage are per Canty Engineering approved street and storm drain Plans #D–678. Provide a minimum 2% grade to all catch basins.



Key Map
NTS

0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

Underground Service Alert
Call: TOLL FREE
1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1982 — Signature — 3/12/02 Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ______

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

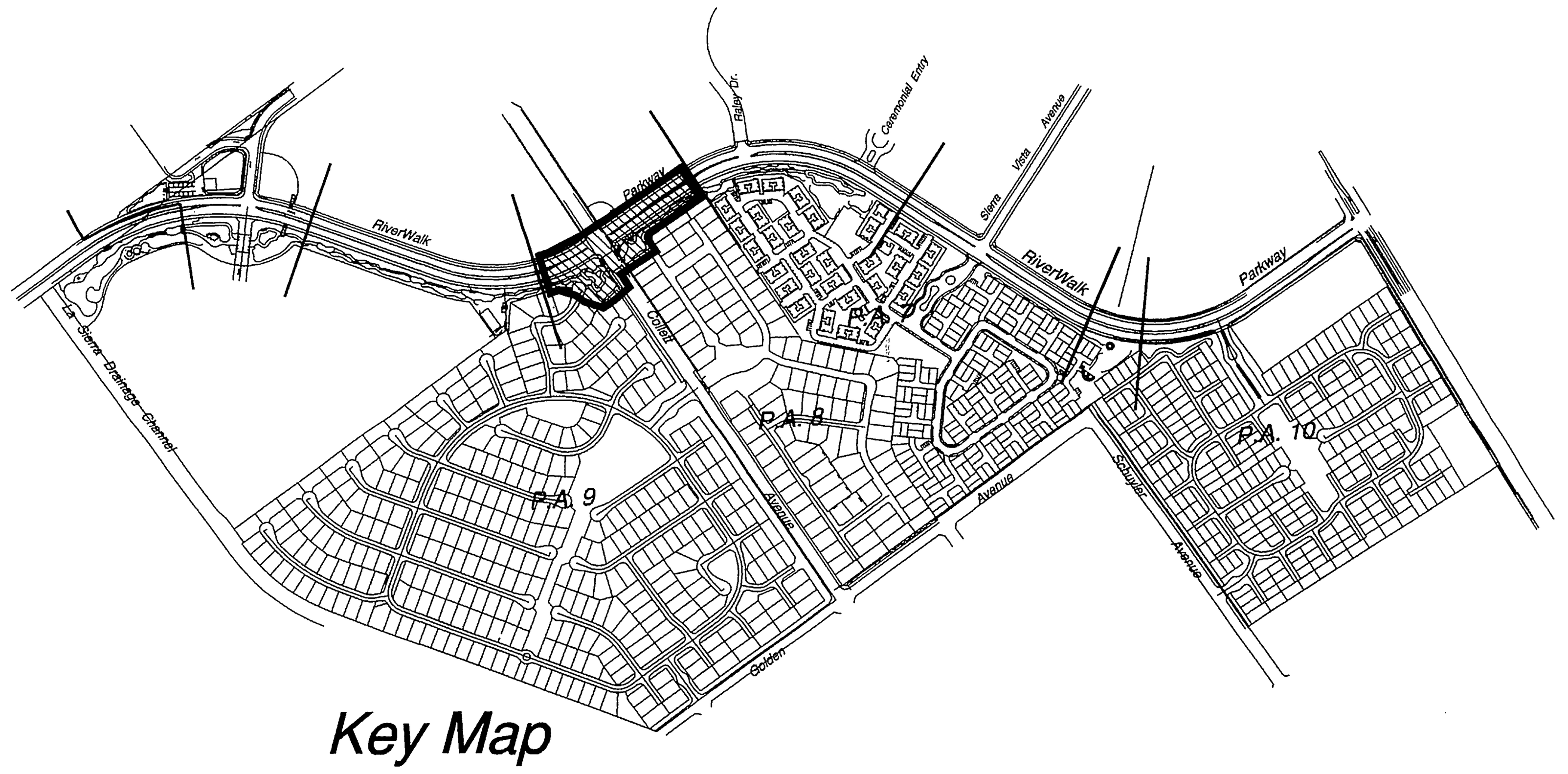
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan

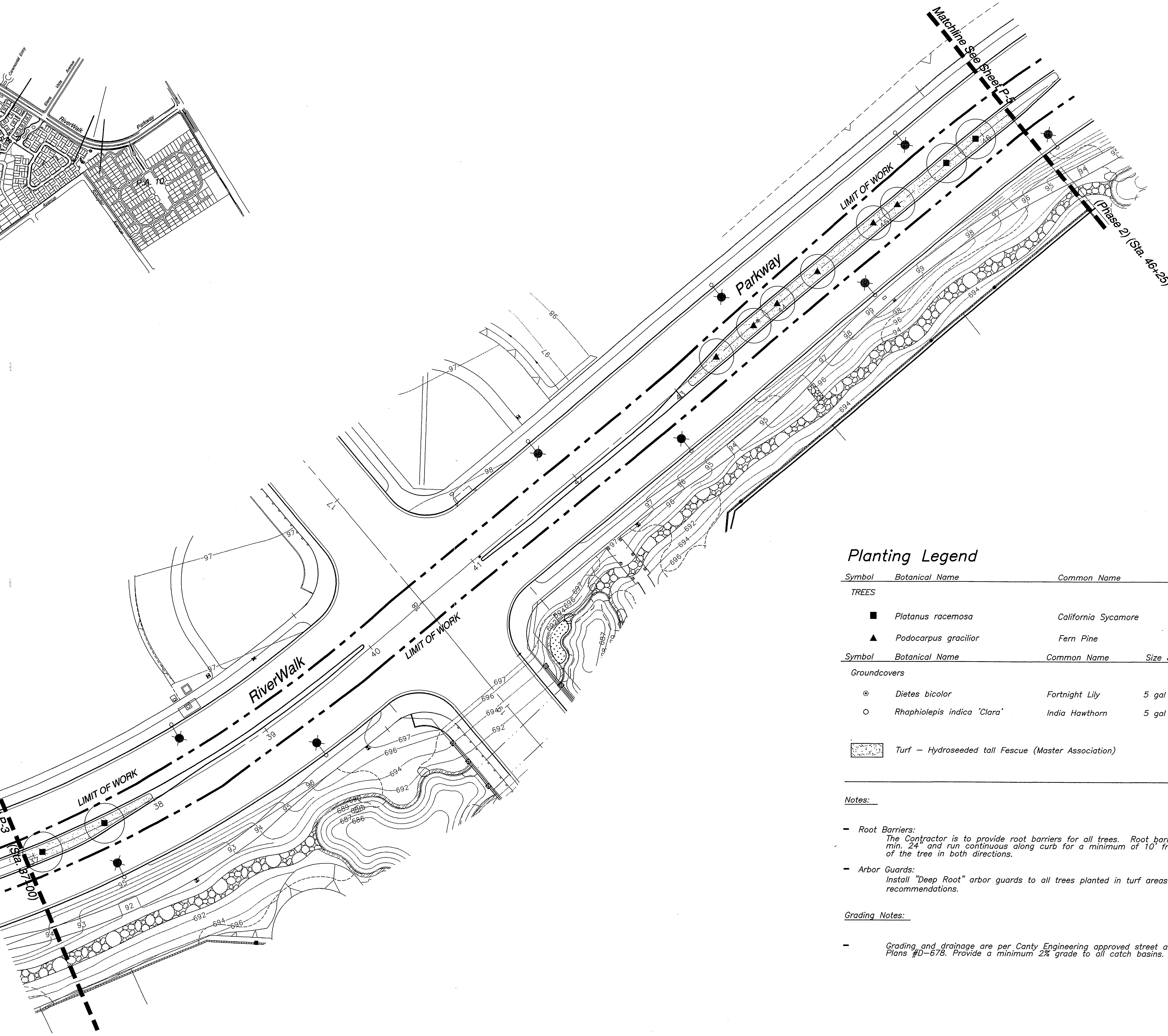
Riverwalk Parkway Median
Sta. 25+00 - 37+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 28 OF 36
FILE NO.: P-3

RiverWalk Parkway Medians PC - 4268 -M1



Key Map
NTS



Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
TREES			
■	*Platanus racemosa*	California Sycamore	15 gal; Standard 36" Box; Standard
▲	*Podocarpus gracilior*	Fern Pine	24" box; Standard

Symbol	Botanical Name	Common Name	Size & Comments
Groundcovers			
⊙	*Dietes bicolor*	Fortnight Lily	5 gal @ 30" o.c.
○	*Rhaphiolepis indica 'Clara'*	India Hawthorn	5 gal @ 24" o.c.

Turf – Hydroseeded tall Fescue (Master Association)

Notes:

- Root Barriers:
  The Contractor is to provide root barriers for all trees. Root barrier depth to be min. 24" and run continuous along curb for a minimum of 10' from the center of the tree in both directions.
- Arbor Guards:
  Install "Deep Root" arbor guards to all trees planted in turf areas installed per manufacturer recommendations.

Grading Notes:

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0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
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227–2600
TWO WORKING DAYS BEFORE YOU DIG

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1972 — Signature — Date 3/15/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
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100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
⚠	N.T.S. 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		
PLANNING DEPT.		3/15/02
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

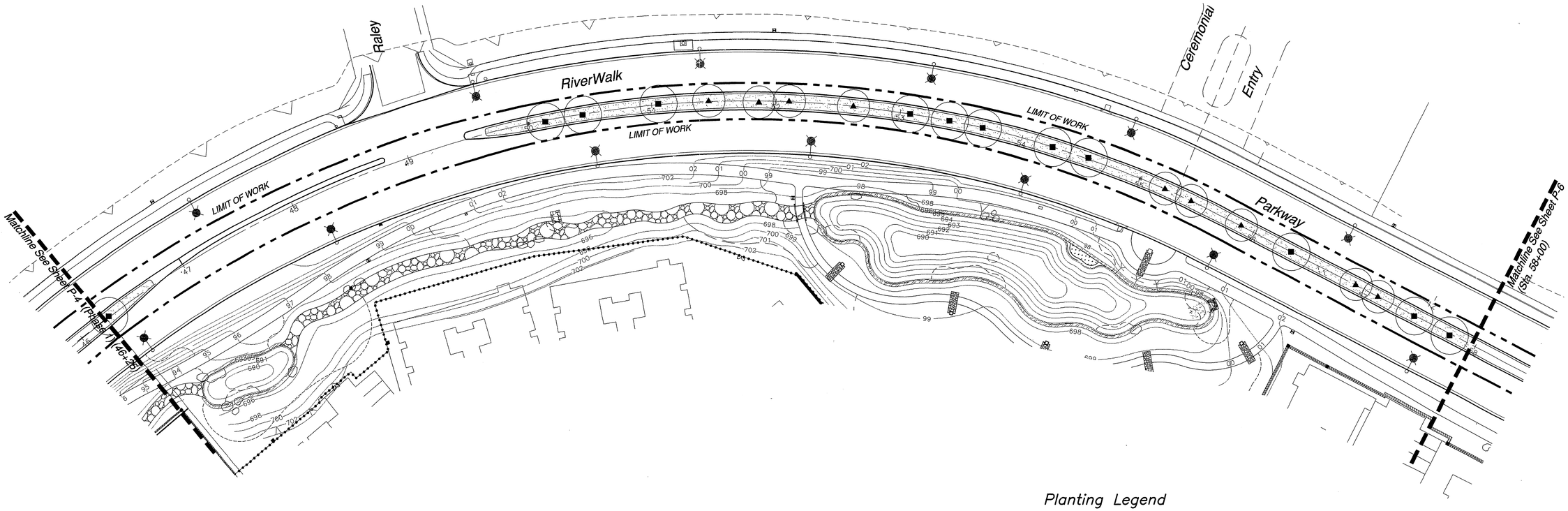
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan

Riverwalk Parkway Median
Sta. 37+00 - 46+25

PROJECT NO. GI01-000
R-3561-ML
SHEET 29 OF 36
FILE NO.: P-4

RiverWalk Parkway Medians PC - 4268 -M1



Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
TREES			
■	Platanus racemosa	California Sycamore	15 gal; Standard 36" Box; Standard
▲	Podocarpus gracilior	Fern Pine	24" box; Standard
Symbol	**Botanical Name**	**Common Name**	**Size & Comments**
Groundcovers			
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	Turf – Hydroseeded tall Fescue (Master Association)		

Notes:

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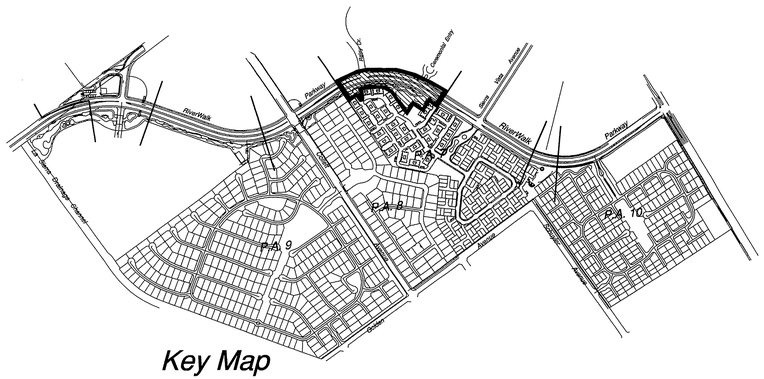

Key Map
NTS

0 20 40 80
SCALE: 1" = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
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1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT
Paul T. Haden, Lic. No. 1972
Signature
3/15/02
Date
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.0624
Fax 949.366.0626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S		03/21/02

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

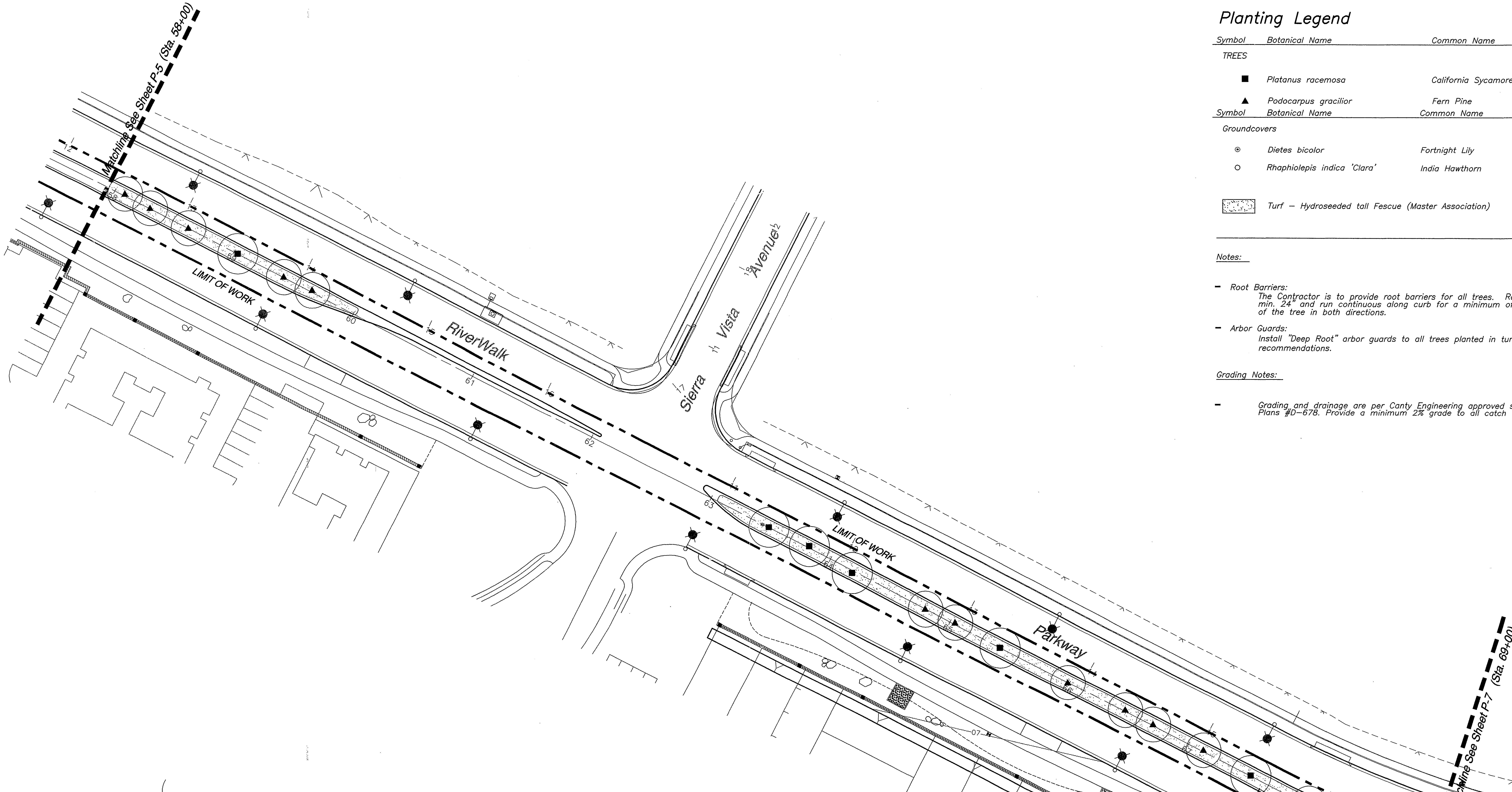
	BY	DATE
APPROVED BY		
PRINCIPAL ENGR.		3/15/02
PLANNING DEPT.		3/15/02
PARKS DEPT.		3/18/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan
Riverwalk Parkway Median
Sta. 46+25 - 58+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 30 OF 36
FILE NO.: P-5

RiverWalk Parkway Medians PC - 4268 M2



Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
TREES			
■	*Platanus racemosa*	California Sycamore	15 gal; Standard 36" Box; Standard
▲	*Podocarpus gracilior*	Fern Pine	24" box; Standard

Symbol	Botanical Name	Common Name	Size & Comments
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[turf pattern] Turf – Hydroseeded tall Fescue (Master Association)

Notes:

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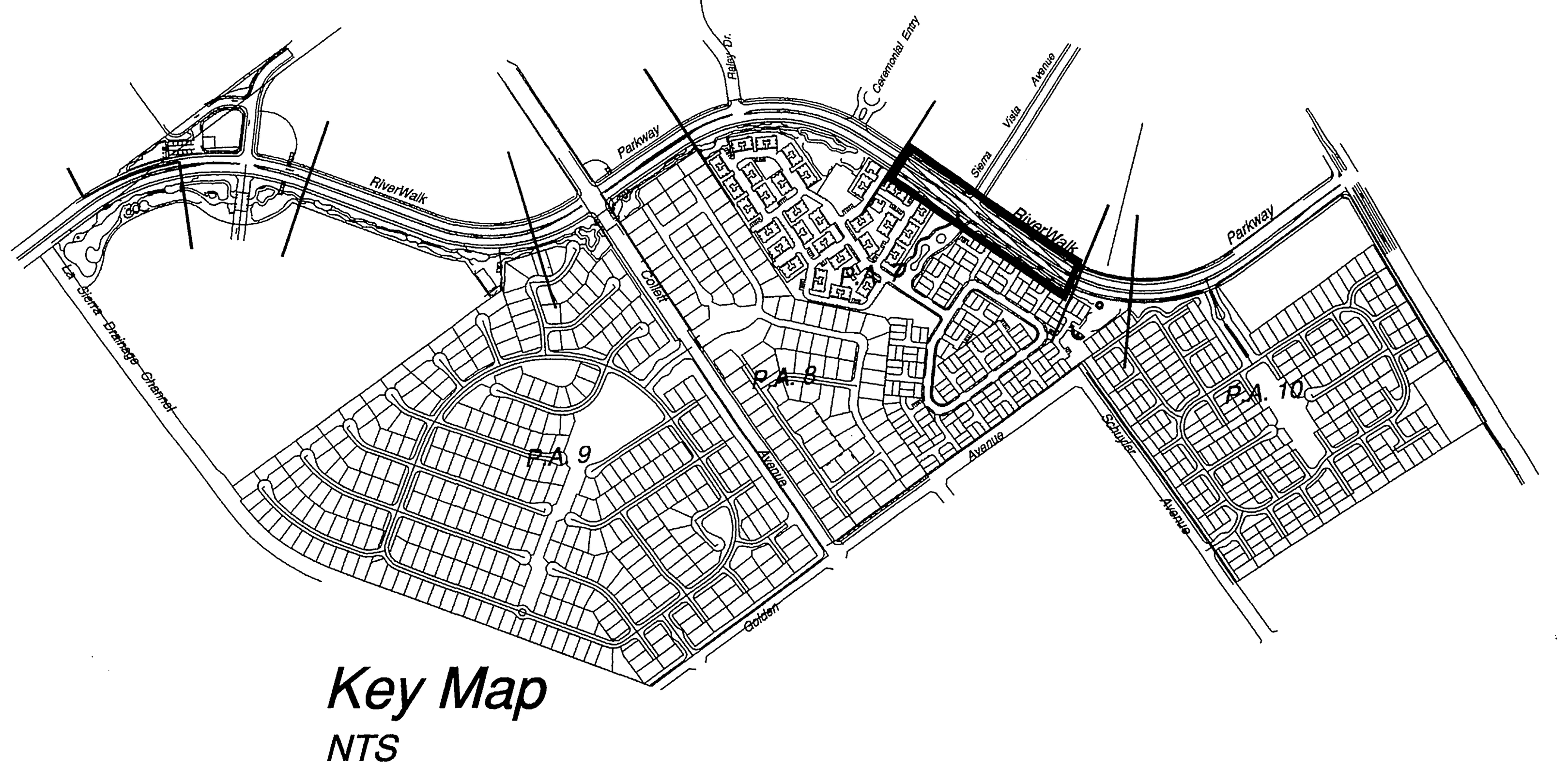

Key Map
NTS

0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
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227–2600
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PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1892 — Signature [signed] — Date 3/15/02 — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ______

Landscape Architecture
Urban Design
Planning
Habitat Restoration

100 Avenida Miramar
San Clemente
California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS		APPR.	DATE
△1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	[initials]	3/19/2002
PLANNING DEPT.	[initials]	3/15/02
PARKS DEPT.	[initials]	03/15/02
Dpty. P.W. Director		
STREET SERVICES		

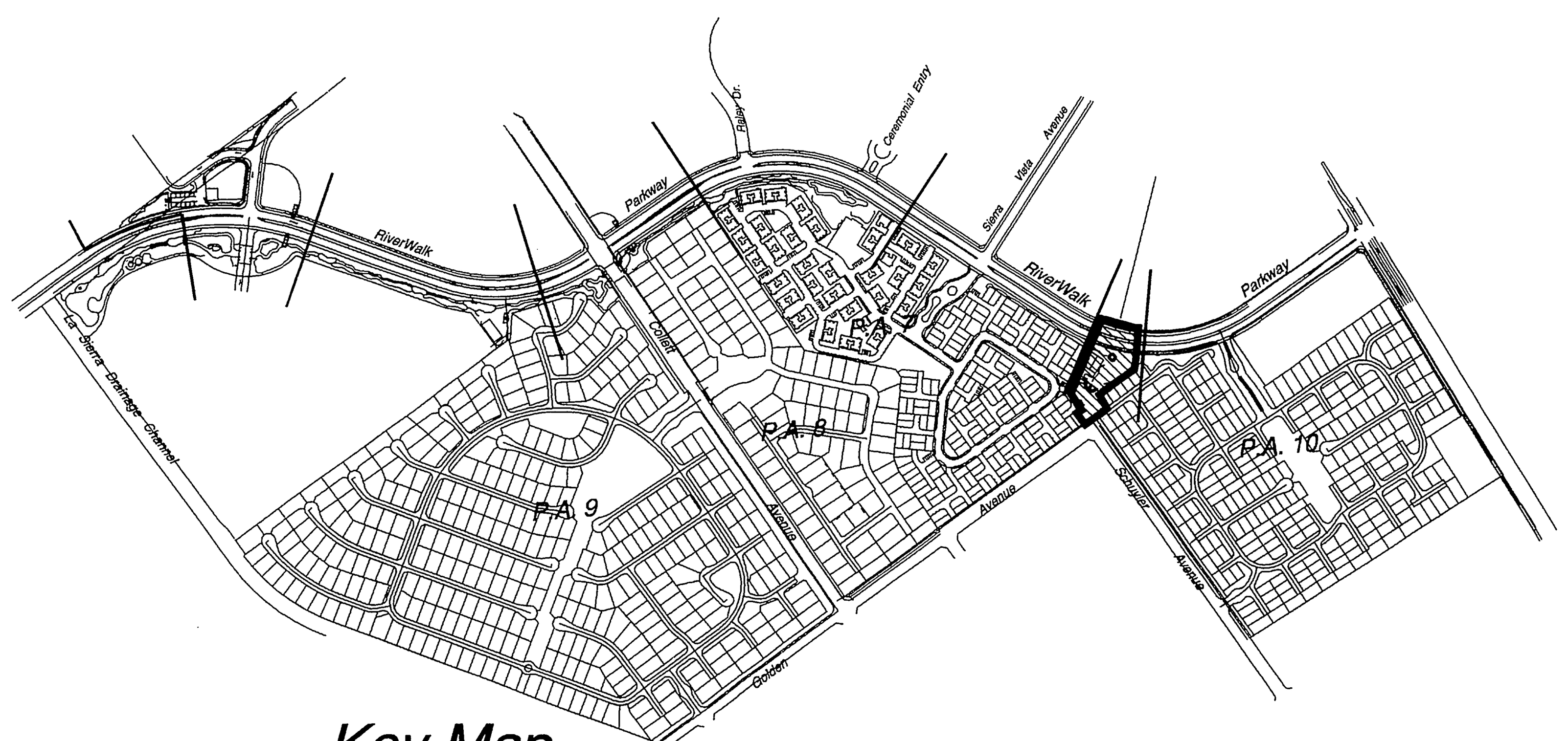
APPROVED BY [signature: Tom Boyd]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan

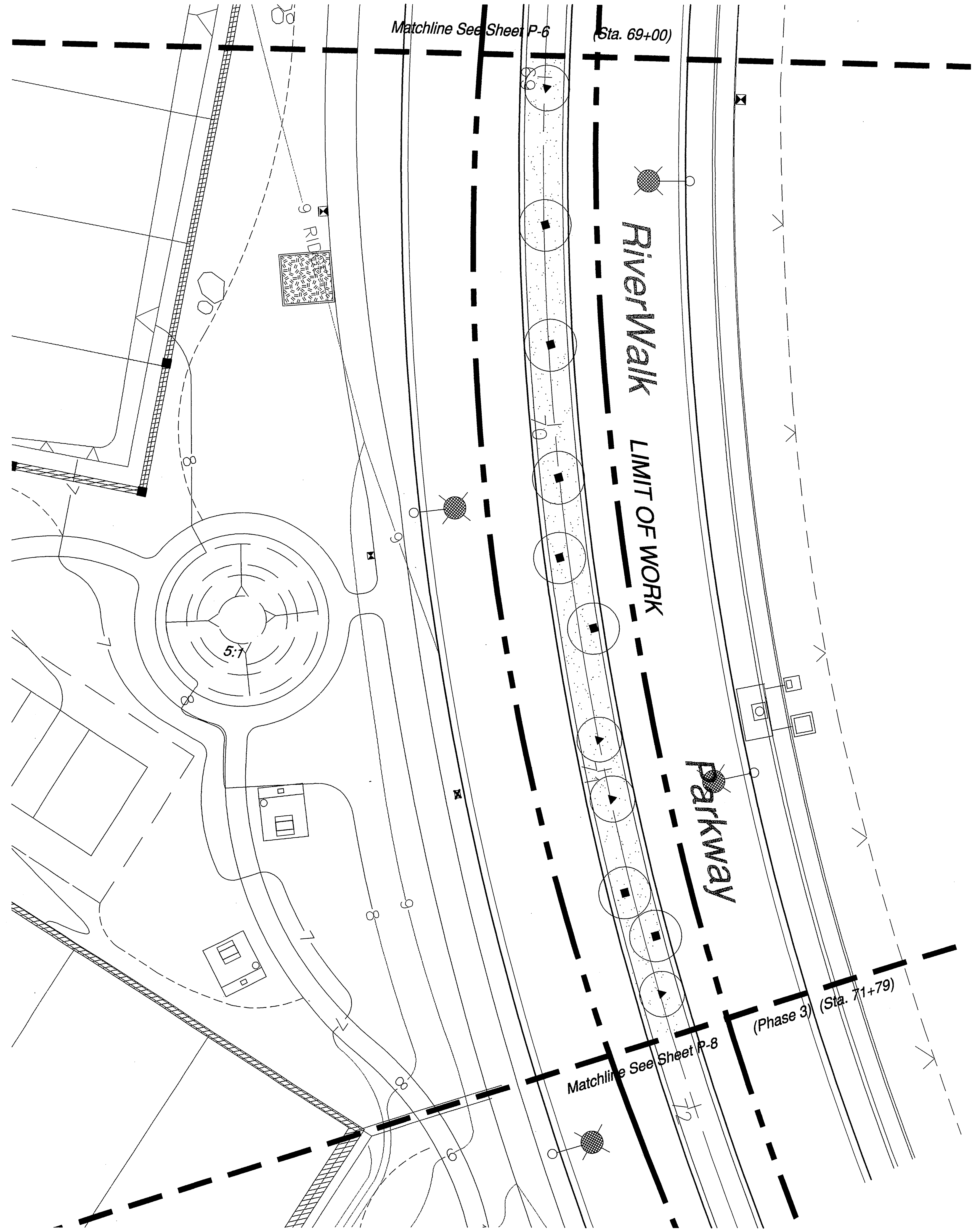
Riverwalk Parkway Median
Sta. 58+00 - 69+00

PROJECT NO. GI01-000
R-3561-ML
SHEET 31 OF 36
FILE NO.: P-6

RiverWalk Parkway Medians PC - 4268 -M2



Key Map
NTS



Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
TREES			
■	Platanus racemosa	California Sycamore	15 gal; Standard 36" Box; Standard
▲	Podocarpus gracilior	Fern Pine	24" box; Standard

Symbol	Botanical Name	Common Name	Size & Comments
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Turf – Hydroseeded tall Fescue (Master Association)

Notes:

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0 10 20 40
SCALE: 1" = 20'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

Underground Service Alert
Call: TOLL FREE 1 – 800 227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT · Paul L. Haden, Lic. No. 1972 · Signature · Date 3/15/02 · STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture · Urban Design · Planning · Habitat Restoration
100 Avenida Miramar, San Clemente, California 92672
Phone 949.366.6624 · Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S. 03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan

Riverwalk Parkway Median
Sta. 69+00 - 71+79

PROJECT NO. GI01-000

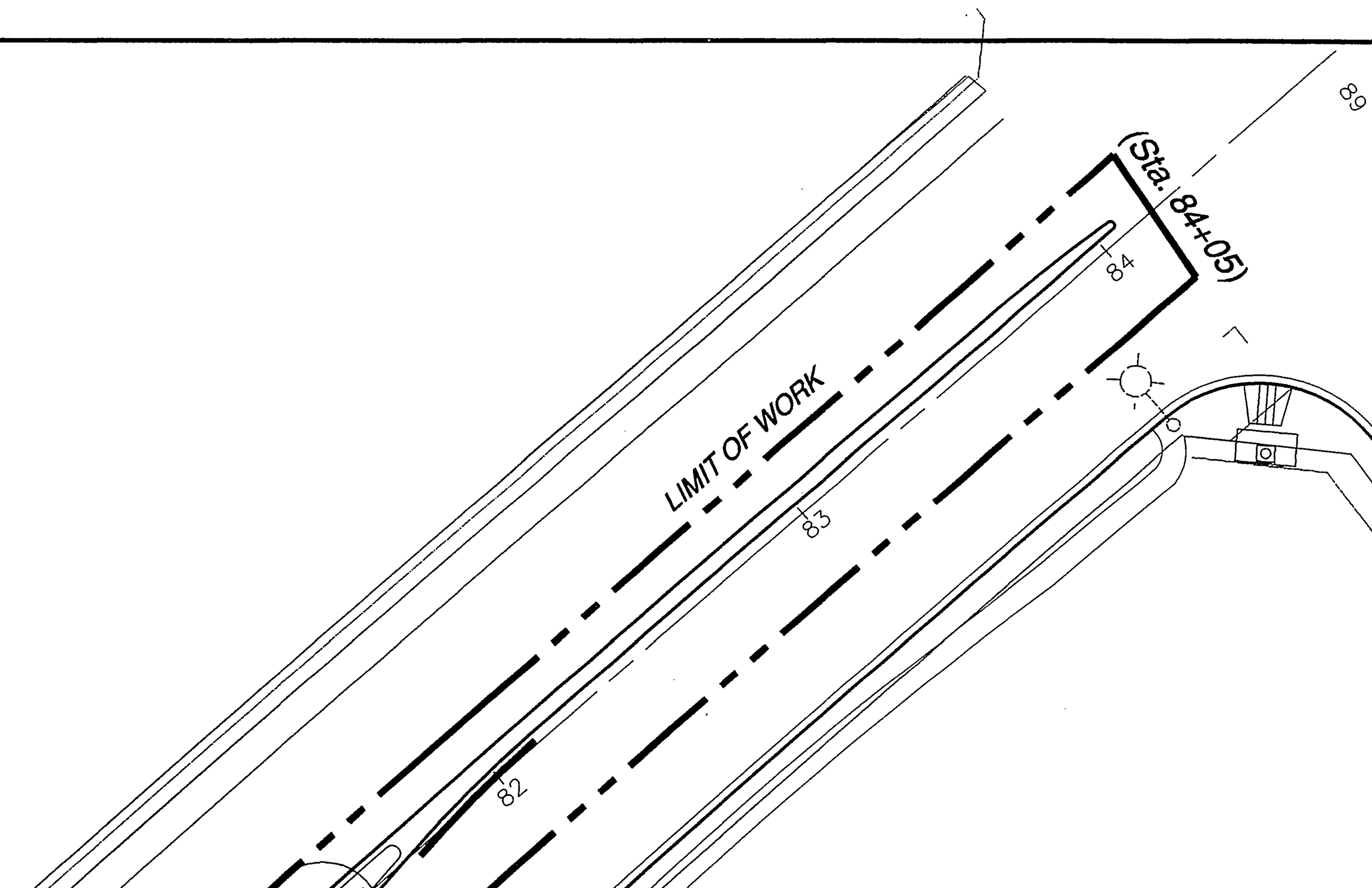
R-3561-ML

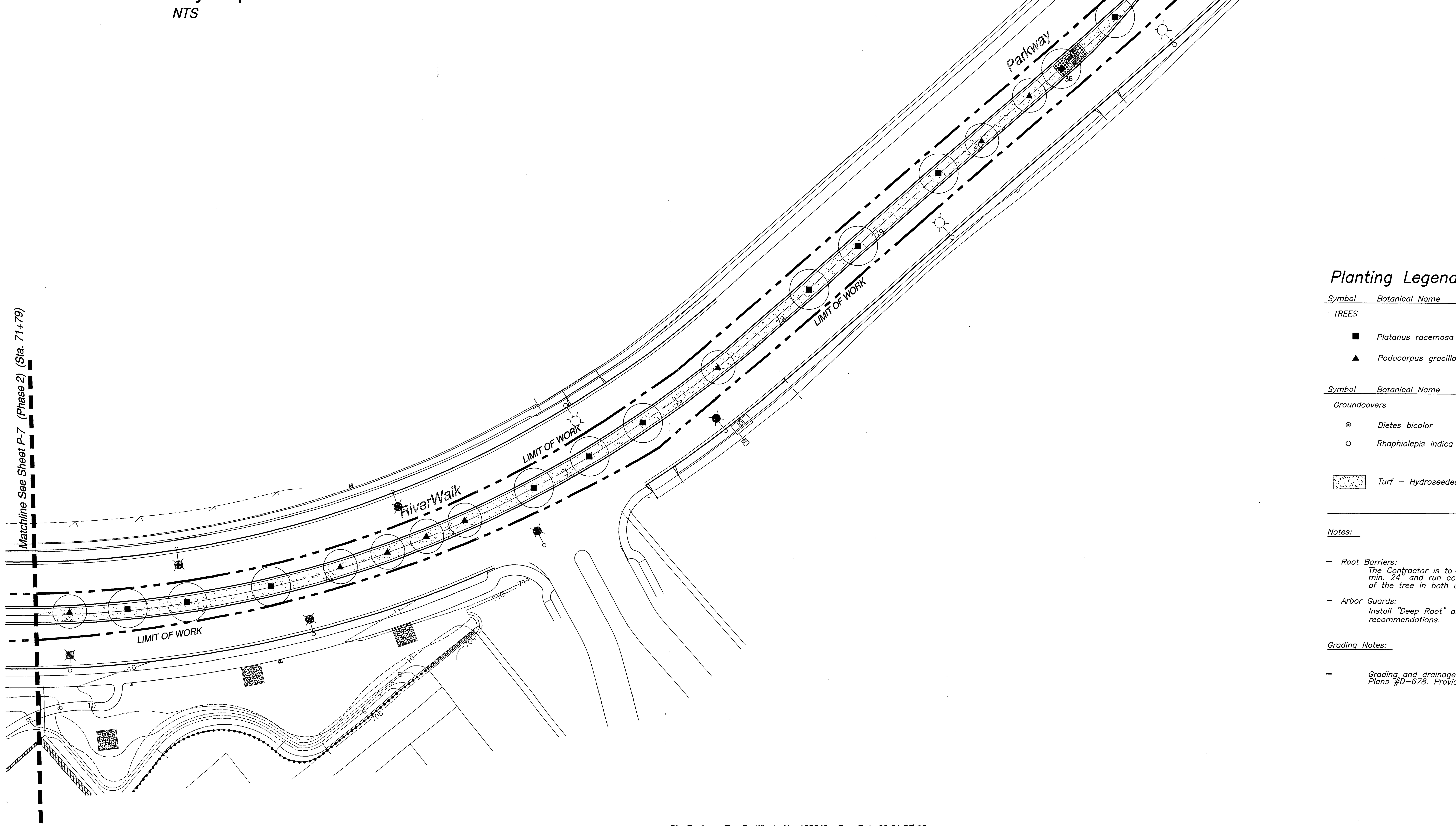
SHEET 32 OF 36

FILE NO.: P-7

RiverWalk Parkway Medians PC - 4268 -M2

Key Map
NTS





Planting Legend

Symbol	Botanical Name	Common Name	Size & Comments
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[Turf symbol] Turf – Hydroseeded tall Fescue (Master Association)

Notes:

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0 20 40 80
SCALE: 1' = 40'-0"

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

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REGISTERED LANDSCAPE ARCHITECT — Raul L. Haden, Lic. — STATE OF CALIFORNIA
Signature [signed]
Date 3/13/02

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ________

Landscape Architecture
Urban Design
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TheCollaborativeWest

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

SCALE: 1" = 40'-0"
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS		APPR.	DATE
1	N.T.S	03/21/02		

DESIGNED BY T.C.W. DRAWN BY T.C.W. CHECKED BY R.C.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	[initials]	3/19/2002
PLANNING DEPT.	[initials]	3/15/02
PARKS DEPT.	[initials]	03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Plan

Riverwalk Parkway Median
Sta. 71+79 - 84+05

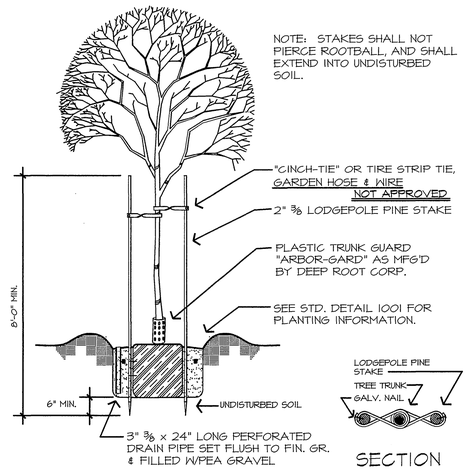
PROJECT NO. GI01-000

R-3561-ML

SHEET 33 OF 36

FILE NO.: P-8

RiverWalk Parkway Medians PC - 4268 -M3



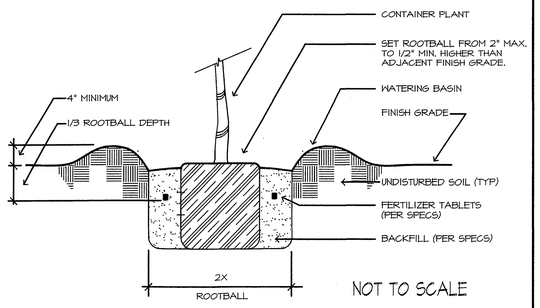
Approved	Date 03/05/02	Park and Recreation Department CITY OF RIVERSIDE	Detail No.
Revised	Date	DOUBLE STAKING DETAIL	1002

A **TREE PLANTING DETAIL - DOUBLE STAKE**

GENERAL PLANTING NOTES

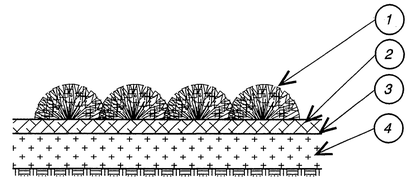
1) Contact the Street Tree Inspector at 351-6126 two working days (48 hours) prior to installing any plant material.
2) Trees planted in turf areas shall be maintained with a minimum 12" radius around the tree free of turf throughout the maintenance period.
3) Watering basins may be removed after the maintenance period.
4) For staking information as applicable, refer to Standard Detail 1002.
5) For guying information as applicable, refer to Standard Detail 1003.
6) For specification information, refer to City of Riverside Park and Recreation Department Standard Specifications, Section 02480 Planting.
7) Provide Fertilizer Tablets as follows:

1 gallon plant	2 tablets
5 gallon plant	3 tablets
15 gallon plant	5 tablets
24" box plant	8 tablets

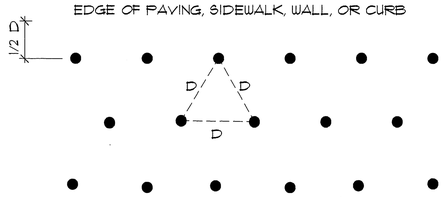


Approved	Date 04/18/96	Park and Recreation Department CITY OF RIVERSIDE	Detail No.
Revised	Date	PLANTING DETAIL	1001

B **SHRUB PLANTING DETAIL**



1. PLANT MATERIAL
2. 2" DEEP MULCH
3. FINISH GRADE
4. PREPARED BACKFILL (SEE SPECIFICATIONS FOR TYPE AND DEPTH.)



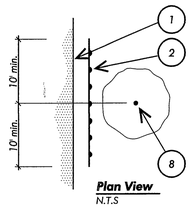
NOTE: LOCATE PLANTS SPACED EQUAL DISTANCE (D) FROM EACH OTHER AS SHOWN.
D – AS NOTED ON PLAN.

C **TRIANGULAR SHRUB SPACING**

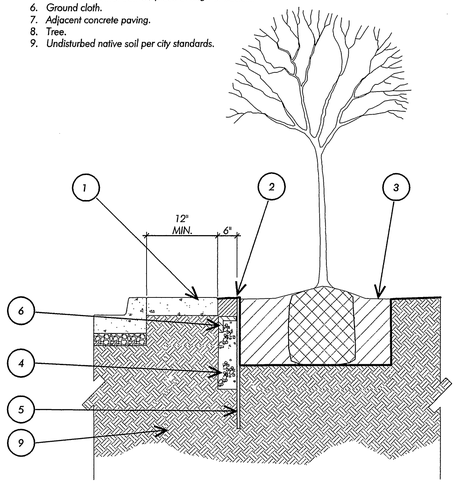
D

LEGEND

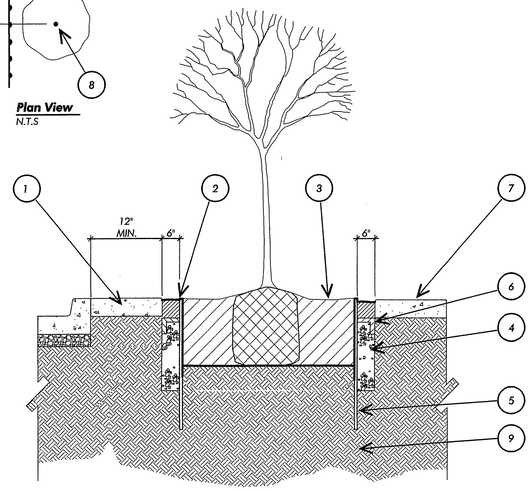
1. Decorative hardscape.
2. Top of root barrier shall be set flush with finish grade of bark mulch.
3. Finish grade.
4. Drain rock.
5. Linear root control barrier, place at edge of backfill.
6. Ground cloth.
7. Adjacent concrete paving.
8. Tree.
9. Undisturbed native soil per city standards.



Plan View
N.T.S



TYPICAL SECTION
Scale: 3/8" = 1'-0"



SECTION FOR ALL MEDIANS 10' WIDE OR LESS
Scale: 3/8" = 1'-0"

E **Root Barrier**

City Business Tax Certificate No. 103549 Exp. Date 03-01-2003

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PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT Paul L. Hagen, Lic. No. 3720 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration

100 Avenida Miramar
San Clemente
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Phone 949.366.6624
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SCALE: As Shown
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University

Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S		03/21/02

DESIGNED BY T.C.W. DRAWN BY TCW CHECKED BY RC

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

	BY	DATE
APPROVED BY		
PRINCIPAL ENGR.		
PLANNING DEPT.		
PARKS DEPT.		
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Details
Riverwalk Parkway Median

PROJECT NO. GI01-000
R-3561-ML
SHEET 34 OF 36
FILE NO.: PD-1

RiverWalk Parkway Medians PC - 4268 -M

SECTION 02483 - PUBLIC LANDSCAPE PLANTING

PART 1 - GENERAL

1.01 DEFINITIONS:

A. Contractor: Where used throughout this specification, the term "Contractor" shall mean the licensed Contractor hired by the Builder/Developer to install the landscape improvements and any and all subcontractors to Contractor.

B. Builder/Developer: The Legal entity/individual responsible for development of the project who has entered into the agreement and posted a surety to guarantee the installation of the public landscape improvements.

1.02 RELATED DOCUMENTS:

A. Standard Specifications: All Public Landscape Planting Work shall conform to the "Standard Specifications for Public Works Construction" Current Edition, prepared by the Southern California Chapter of the American Public Works Association and Southern California District of the Associated General Contractors of California, published by Building News, Inc., Los Angeles, California, and all amendments thereto, as adopted by the City of Riverside, and as provided herein.

B. Reference Standards: American Association of Nurserymen Standards.

1.03 SCOPE: The Work of this Section shall consist of furnishing all labor, materials, equipment, appliances and services necessary for the execution and completion of all **Public Landscape Planting Work** as shown on the Plans and as described in the Specifications including, but not necessarily limited to, the following:

- Soil preparation;
- Finish grading;
- Planting trees;
- Guying and staking trees;
- Planting shrubs, vines and groundcover;
- Hydroseeding turf;
- Soil erosion control;
- Maintenance;
- Plant establishment;
- Coordination with Work of other Sections;
- Testing;
- Clean-up;
- Replacements, Repairs, Guarantees and Warranty Work.

1.04 RELATED WORK: *(Comment: Line out inapplicable sections)*

Site Grading	02210
Irrigation	02441

1.05 SOILS TEST: Contractor shall notify the Park Projects Inspector upon completion of fine grading and prior to commencement of soil preparation work. The Contractor shall take soils samples in the presence of the Park Projects Inspector and shall obtain agronomic soils tests for all planting areas after completion of fine grading and prior to start of soil preparation work. Tests shall be performed by an approved agronomic soils testing laboratory and shall include a fertility and suitability analysis with written recommendations for soil preparation, planting backfill mix, auger hole requirements, and post plant fertilization program. The soils report recommendations will take precedence over the minimum amendment and fertilizer application rates specified herein only if the soils report recommendations exceed the specified minimums. Contractor shall allow a minimum two week period for the soils testing work commencing upon the Park Projects Inspector's acceptance of grade.

1.06 GUARANTEE: All trees installed by the Contractor shall be guaranteed against any and all poor, inadequate or inferior materials and/or workmanship for a period of one (1) year following the date of completion. During the guarantee period, any trees found to be dead, missing, or in poor condition shall be replaced by Contractor within ten (10) days of written notification. Park Projects Inspector shall be the sole judge as to the condition of the trees. Replacement shall be made in accordance with City standards. Material and labor involved in replacing trees shall be provided by Contractor at no additional cost to City and/or the Developer.

1.07 INSPECTIONS: Inspections are required. Contractor shall contact the Park Projects Inspector and the Developer's Landscape Architect at least 48 hours (2 working days) in advance of an anticipated inspection. An inspection will be required at each of the steps listed below:

A. Fine Grade Prior to Commencement of Soil Preparation: Upon completion of fine grading and prior to commencement of soil preparation, for acceptance of fine grading work and taking of soils samples.

B. Finish Grade: Inspection of completed finish grading work following soil preparation work.

C. Plant Material: Inspection of plant materials upon delivery to the job site, but prior to planting.

D. Plant Locations: When container plants and/or bare root stock are spotted for planting, but before planting holes are excavated.

E. Completed Planting: When planting and all other indicated or specified work has been completed.

F. Chemical Applications: During application of pre-emergent chemical.

G. Start of Plant Establishment: At the start of the Plant Establishment Period.

H. End of the Plant Establishment: Prior to Final Acceptance of the Project for ongoing maintenance, the project will be inspected for end of the Plant Establishment Period. Acceptance for maintenance shall be confirmed in writing. Contractor shall remain responsible for maintenance until receipt of written confirmation of acceptance of the Project for maintenance by the applicable party (HOA, City, Master Property Owner's Association as applicable).

1.08 SUBMITTALS: The following written certifications are required to be submitted to the Park Projects Inspector upon delivery of the respective materials to the job site:
Total Quantity of commercial fertilizers, by type
Total Quantity of soil amendments and conditioners, by type
Total Quantity of seed, by type
Total Quantity of fiber-mulch
Total Quantity of iron sulphate

1.09 PLANT ESTABLISHMENT PERIOD: The Plant Establishment Period shall be for a minimum period of one (1) year; see also Subsections **3.12 Maintenance and Plant Establishment** and **3.13 Start of Plant Establishment Period** regarding length of plant establishment and criteria to start.

PART 2 - MATERIALS

2.01 GENERAL: All materials shall conform with Section **212 - Landscape and Irrigation Materials** of the Standard Specifications except as modified herein.

2.02 FERTILIZER, SOIL AMENDMENTS AND CONDITIONERS: Add the following to Standard Specifications Section **212-1.2.3 Commercial Fertilizer:**

A. Planting Tablets: Tightly compressed long-lasting, slow-release fertilizer tablets weighing 21 grams, with a potential acidity of not more than 5 percent by weight and having an analysis of 20-10-5 derived from the sources listed in the following guaranteed analysis:

GUARANTEED ANALYSIS

Total Nitrogen (N) 20%
Derived from urea formaldehyde
7.0% water soluble nitrogen
13.0% water insoluble nitrogen

Available Phosphoric Acid (P_2O_5). 10%
Derived from calcium phosphate

Soluble Potash (K_2O). 5%

Combined Calcium (Ca). 2.6%
Derived from calcium phosphates

Combined Sulfur (S). 1.6%
Derived from ferrous and potassium sulfates

Iron (expressed as elemental Fe) 35%
Derived from ferrous sulfate

B. Commercial fertilizer: Shall bear the manufacturer's guaranteed statement of analysis and shall meet the following minimum requirements: 16% nitrogen, 6% phosphoric acid, and 8% potash.

C. Organic Soil Amendment: Shall be type 1 organic soil amendment, wood based product, nitrogen stabilized, and free of foreign matter.

D. Soil Conditioners: Add to Standard Specifications, new Section as follows:

212-1.2.6 Inorganic Conditioners. Inorganic conditioners shall be agricultural grade gypsum, soil sulfur and iron sulfate. Iron sulphate shall be ferric sulphate or ferrous sulphate in pelleted or granular form containing not less than 18.5% iron, expressed as metallic iron, and shall be registered as an agricultural mineral with the State Department of Food and Agriculture in compliance with Chapter 5 "Fertilizing Materials", of Division 7 of the Food and Agriculture Code of California, commencing at Section 14501.

2.03 HEADERS, STAKES AND TIES: Add the following to Standard Specifications Section **212-1.5 Headers, Stakes and Ties**:

A. Mowstrip: Standard Specifications Section **212-1.5.2 Headers and Stakes** replace with the following to read:

"Headers shall be Concrete Headers/Mow Curbing - Concrete shall be 5 sack mix with a maximum slump test of four inches (4"). Provide sufficient concrete forming and stakes (maximum 3' o.c.) to provide continuous line without waving."

B. Tree Stakes: Shall be straight-grained lodgepole pine, or City approved equal. Stakes shall be free from knots, checks, split, or disfigurements.

C. Tree Ties: Shall be made from tire casing, 22" long by 3/4" wide, fastened to tree stake with two galvanized 5d roofing nails each.

2.04 HYDROSEEDING MATERIALS:

A. Binding Agent: Shall be a dry powder organic concentrate, Ecology Controls "M-Binder" as available from Robinson Fertilizer Company, Anaheim, CA 714/632-9715 or City approved equal.

B. Fertilizers:
1. Controlled Release Fertilizer (CRF):
a) Total Quantity Exceeding 1 Ton: CRF shall be "Sierra 17-6-12 Plus Minors" Controlled Release Fertilizer (Stock# 90209), 4-5 month time release formulation, using resin coated prills, as manufactured by The Scotts Co., Marysville, OH 1-800-492-8255 (Local Manufacturer's Representative: Jack Wackerman, 760/757-2150), or City approved equal, and as available through Western Farm Service, Riverside, CA (909) 686-3736.

b) Total Quantity Less than 1 Ton: CRF shall be "Osmocote" Controlled Release Fertilizer with a formulation of 17-7-12 (Stock #90010) as manufactured by the Scotts Company, Marysville, OH 1-800-492-8255 (Local Manufacturer's Representative: Jack Wackerman, 760/757-2150), or City approved equal, and as available through Western Farm Service, Riverside, CA (909) 686-3736.

2. Triple Super Phosphate: Shall be a premium quality granulated high phosphorus "Best" fertilizer product having an analysis of 0-45-0, as manufactured by J. R. Simplot Company, Lathrop, CA (209) 858-2511, or City approved equal.

C. Fiber-Mulch: Shall be produced from cellulose such as wood pulp or similar organic material and shall be of such character that it will disperse into a uniform slurry when mixed with water. The fiber shall be of such character that when used in the applied mixture, an absorptive or porous mat, but not a membrane, will result on the surface of the ground. Materials which inhibit germination or growth shall not be present in the mixture.

D. Seed: Turf seed mix as specified.

E. Water: All water used for hydroseeding shall be potable domestic water. Contact the City Public Utilities Department, Water Division at 909/826-5648 regarding availability of water and temporary construction meter and charges for water drawn from City fire hydrants.

2.05 JUTE NETTING: Jute netting shall be new and shall be of uniform, plain-weave, flame-retardant mesh. The mesh shall be dyed green and shall be made from unbleached single jute yarn. The yarn shall be of loosely twisted construction and shall not vary in thickness by more than one-half its normal diameter. Jute netting shall be furnished in rolled strips and shall meet the following requirements:
Width - 48 inches, with a tolerance of one inch wider or narrower.
Minimum 78 warp ends per width of roll.
Minimum 41 weft ends per yard of length.
Weight shall average 1.22 pounds per linear yard, with a tolerance of 5 percent heavier or lighter.

2.06 PLANTS: Add the following to Standard Specifications Section **212-1.4 Plants**:

A. General: Add the following to sub-section **212-1.4.1 General**: All plants shall be true to name, with at least one of each bundle or lot tagged with the name and size in accordance with the American Association of Nurserymen Standards. In all cases, botanical names shall take precedence over common names. All plants and planting materials shall meet or exceed the specifications of Federal, State, and County Laws requiring inspection for plant disease and insect control.

B. Quality and Size:
1. Quality: All plant material shall comply with the definition for number one nursery stock per the current edition of "Horticultural Standards" as adopted by the American Association of Nurserymen.
2. Size: Add the following to Standard Specifications Sections **212-1.4.2 Trees** and **212.1.4.3 Shrubs**:

a) All container plants supplied by Contractor shall be of the standard height and diameter set by the American Standard for Nursery Stock as specified for the container size within which the plants are delivered to the site. The height of the trees shall be measured from the root crown to the last division of the terminal leader and the diameter shall be measured six (6) inches above the crown roots.
b) All palm trees shall be the size(s) as noted on the approved plans, but in no case less than a minimum overall height of 8 to 12 feet as measured from the crown of the rootball to the tips of the fronds, or four feet of brown trunk whichever is greater.
c) All container grown trees shall be the size(s) as noted on the approved plans, but in no case less than a minimum 15 gallon container size, with minimum caliper and height in accordance with the American Association of Nurseryman standards for container plants.

C. Bare Root Stock: Substitution of bare root stock for plant material specified by container size shall be subject to the review and approval of the Park Projects Inspector. All bare root stock shall conform to the American Nurseryman's Association standards. Minimum caliper shall be two (2) inch diameter and minimum height shall be twelve (12) feet.

2.07 MULCH:

A. Nitrolized Shavings: Shall conform with Standard Specifications Section **212-1.2.5 (a) Type I Mulch.**

B. Tree Mulch: Shall be a ground wood product as produced through a wood chipper, and shall consist of twigs and branches with pieces of a maximum size of ½" diameter by 4" long, free of seeds, trash and debris and other inert non-organic materials.

2.08 TURF PLANTINGS:
A. SEED: Add the following to Standard Specifications Section **212-1.3 Seed:**
Seeded Turf: For turf areas being planted solely from seed, use the following seed mix:

Turf Seed Mix	Proportion by weight	Purity	Germination
Perennial Rye (50% 'Caliente Fine', 50% 'Prelude')	60%	95%	90%
PJ Bluegrass (50% 'Rugby' 50% 'Parade')	10%	98%	80%
Un-Hulled Bermuda (Certified Arizona Common)*	30%	98%	85%

Seeding rate: Shall be as noted on the approved plans, but in no case less than a minimum of 218 pounds per acre (5 LBS/1,000 SF)
*Note: For applications in May through September, use Hulled Bermuda.

B. SOD: Turf sod shall be of the type noted on the Plans. All sod shall be new, fresh, viable sod delivered in full pallets ready for installation.

PART 3 - EXECUTION

3.01 GENERAL: All Work shall conform with Section 308 **LANDSCAPE AND IRRIGATION INSTALLATION** of the Standard Specification, except as modified herein.

At Contractor's option, subject to the Park Project Inspector and Landscape Architect's acceptance of the material available and the appropriateness of the planting season, bare root stock may be substituted for the required 15 gallon and 24" box tree species if commercially available as bare root plantings and provided the corresponding minimum caliper and height requirements specified above in Part 2 Materials are met. Such substitution shall all at no additional cost to the City or the Developer.

3.02 WEED CONTROL MEASURES: Upon completion of all fine grading work, and prior to soil preparation, perform weed control measures as follows:
1. Irrigate all areas designated to be planted for a minimum of 10 minutes per setting, two settings per day for seven days to germinate all weed seed possible.
2. Apply a contact weed killer and allow sufficient time to obtain complete kill of all weeds germinated.
3. Repeat step one above.
4. Repeat step two above.

3.03 SOIL PREPARATION: Add the following to Standard Specifications Section **308-2.3 Topsoil Preparation and Conditioning:**

A. Work Sequence: All fine grading, mounding and weed control measures shall be completed prior to soil preparation. Soil Preparation Work shall not commence until the agronomic soils test has been completed. Should 30 calendar days elapse between completion of soil preparation and commencement of planting, all areas shall be prepared again.

B. Excluded Areas: Planting areas with slopes 3:1 and steeper shall not be soil prepared. In lieu of soil preparation, such slopes will require fertilizer tablets for all plantings as specified below.

C. Soil Preparation: In all planting areas with gradients less than 3:1, areas to be soil prepared shall first be cross ripped to a minimum depth of 6" with tractor tines spaced at maximum 18" on center. Following cross-rip operations, a layer of soil amendments shall be spread and rototilled into the soil to a minimum depth as noted on the Plans, but not less than 4 inches, or as recommended by the soils report if greater, so that the soil shall be loose, friable, and free from rocks, sticks, and other objects undesirable to planting.

D. Amendment Application Rates: The following soil amendments shall be added per 1,000 square feet to all planting areas with gradients less than 3:1 (agronomic soil test recommendations shall take precedence where these minimum amounts are exceeded):
1. 6 cubic yards Type I organic soil amendment.
2. 15 pounds commercial fertilizer.
3. 100 pounds gypsum.
4. Soil sulfur per soils report.

3.04 FINISH GRADING: Contractor shall finish grade all planting areas, filling as needed or removing surplus dirt, raking to remove all rocks and debris over 1 inch in diameter, and floating to a smooth uniform grade. All areas shall slope to drain. Flow lines shall be established to roads, curbs, drainage swales and inlets, and/or sidewalks as shown on the Plans and as directed. All fill material placed within the top 12" from finish grade elevations in all planting areas shall be topsoil.

All landscape areas shall be finish graded to "dress out", maintain, and/or re-establish finish grades and flow lines as approved prior to amending the soil. Contractor shall call for inspection upon completion of finish grading work. Contractor shall not proceed with planting work until finish grades have been inspected and accepted by the Park Projects Inspector.

3.05 EROSION CONTROL: Add new Section to the Standard Specifications:

"**308-4.9.6 Jute Netting.** All slopes areas exceeding 3:1 shall receive jute netting. Netting shall also be provided during the Plant Establishment Period, when and as directed by the Park Projects Inspector, along flow lines and other locations where erosion is evident. Jute netting shall be installed loosely, up and down the slope. The installed netting shall fit the soil surface contour and shall be held in place by 9-inch long, 11-gage (minimum) steel wire staples driven vertically into the soil at approximately 24-inch spacing. Jute netting strips shall overlap along the sides at least 6 inches. Ends of strips shall be buried into the soil at least 6 inches. Lap all ends of rolls a minimum of 24"."

3.06 INSPECTION OF CONTAINER PLANTS: The root condition of plants furnished in containers and proposed for use in the Work will be checked by the Park Projects Inspector by removal of earth from the roots of not less than two plants nor more than 2% of the total number of plants of each species or variety from a single source. When container-grown plants are from several different sources, the roots of not less than two plants of each species or variety from each source may be checked by the Park Projects Inspector at the Inspector's option. The selection of plants to be checked will be made by the Park Projects Inspector.
Care shall be exercised to avoid rendering plants unsuitable for planting by virtue of this inspection. However, all plants rendered unsuitable for planting shall be considered as samples, and replacements shall be provided at no additional cost to City. In case the sample plants are found to be defective, the entire lot or lots of plants represented by the defective samples will be rejected.

3.07 PLANTING BACKFILL:

A. Mixing: All backfill materials shall be bulk mixed, not individually mixed at each plant pit.

B. Proportions: Backfill for planting pits shall be enriched using the following blend per cubic yard (agronomic soil test recommendations shall be reviewed prior to soil mixing):
1. Container Plants:
60% top soil — 3 lbs. gypsum
40% Type I Organic Amendment — 2 lbs. iron sulphate
2 lbs. commercial fertilizer
2. Bare Root Stock:
10% wood shavings 90% top soil
fertilizer and soil conditioners as specified for container plants.

3.08 PLANTING:

A. Tree Planting: Add the following to the Standard Specification Section **308-4.5 Tree and Shrub Planting:**
1. Soil surrounding planting pit shall be in a friable condition and moist to a depth of 8".
2. Backfill using specified soil mix to within 8" of finish grade. At this depth, place the plant fertilizer tablets Agriform 20-10-5, 21 grams each, or City approved equal. A minimum of 1 tablet for 1 gallon, 3 tablets for 5 gallons, 5 tablets for 15 gallons, and 8 tablets for a 24" box. Complete backfilling to finish grade.
3. Trees (other than relocated palms) shall be planted at such a depth that the crown roots bear the same relative position to finish grade as the crown roots did in the soils where the trees were grown. Backfill after planting shall be compacted carefully into place without injuring the roots of the tree or breaking up the ball of earth surrounding the roots.

3.09 TREE STAKING: Amend the Standard Specifications Section **308-4.6.1 Method "A" Tree Staking** and **308.4.6.2 Method "B" Tree Staking** to read: Stake trees in accordance with the Park and Recreation Department's Standard Detail #1002.

3.10 TURF PLANTING: Add the following to Standard Specifications Section **308-4.8.2, (b) Method "B"**: Turf Planting shall be performed by either hydroseeding or sodding as indicated on the Plans, or, if not noted, as suitable for the species of turf specified and as acceptable to the City:

A. Pre-moistening: All areas to be planted shall be moistened to a depth of six inches just prior to application.

B. Hydroseeding:
1. Mixing of hydroseed slurry:
a. Mixing shall be performed in a tank, with a built-in continuous agitation and recirculation system of sufficient operating capacity to produce a homogeneous slurry of fiber, M-Binder, seed, fertilizer and water in the following designated unit proportions:

Fiber-Mulch:	1,500 lbs./acre
Fertilizers:	
CRF	870 lbs./acre (20#/1000 SF)
Triple superphosphate	200 lb./acre (4 ½#/1000 SF)
Seed:	as specified above.
Binding Agent:	100 lbs./acre (use on all slopes 5:1 and steeper)
Water:	3,000 gal./acre (maximum)
Agricultural Grade Gypsum:	500 lb./acre

b. With agitation system operating at part speed, water shall be added to the tank, good recirculation shall be established. Materials shall be added in such a manner that they are uniformly blended into the mixture in the following sequence (assumes a nominal 1500 gallon tank):
c. When tank is 1/3 filled with water:
Add binding agent - ½ acre requirement.
Add 5 - 50 pound bales of fiber-mulch.
Add seed - ½ acre requirement.
Add fertilizer - ½ acre requirement.
d. Agitate mixture at full speed when the tank is half-filled with water.
e. Add remainder fiber-mulch requirement, 10 bales, before tank is 3/4 full. Add remainder fertilizers, seed and gypsum. Slurry distribution should begin immediately.

2. Application: Hydroseed slurry shall be applied under high pressure evenly and result in a uniform coat on all areas to be treated. Care shall be exercised to assure that plants in place are not subjected to the direct force of the application. Slurry shall be immediately removed from walks, structures, plants, etc., that are inadvertently sprayed.

3. Clean-up: The slurry shall not be sprayed on non-designated areas. Any slurry spilled or sprayed into areas other than those designated to receive spray shall be cleaned up at Contractor's expense to the satisfaction of the Park Projects Inspector.

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~ 03

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PRIVATE ENGINEERING NOTE

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REGISTERED LANDSCAPE ARCHITECT — Paul L. Haden, Lic. No. 1970 — Signature — 3/15/02 — Date — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE: ______

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TheCollaborativeWest

SCALE: None
DATE: Feb. 26, 2002
BENCH MARK

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

MARK	REVISIONS	APPR.	DATE
1	N.T.S		03/21/02

DESIGNED BY *T.C.W.* DRAWN BY *TCW* CHECKED BY *RC*

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.	[signature]	3/19/2002
PLANNING DEPT.	[signature]	3/15/02
PARKS DEPT.	[signature]	03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Specifications
Riverwalk Parkway Median

PROJECT NO. *GI01-000*
R-3561-ML
SHEET *35* OF *36*
FILE NO.: *PS-1*

RiverWalk Parkway Medians PC - 4268 -M

C. Replanting: At the point that the turf is generally showing signs of establishment, all bare spots shall be replanted within 10 days by Contractor, either with seed or sod as designated by the Park Projects Inspector. Contractor shall be responsible for all replanted turf areas for as long after replanting as is necessary until acceptable germination/rooting and establishment is realized and approved by the Park Projects Inspector.

3.11 WATERING: Add the following to Standard Specifications Section 308-4.9.5 Watering:

A. Responsibility: It shall be Contractor's responsibility to maintain a balanced watering program to ensure proper growth until Final Acceptance of the Work.

B. Initial Watering: Immediately after planting, apply water to each plant. Apply water in a moderate stream in the planting hole until the material about the roots is completely saturated from the bottom of the hole to the top of the ground.

C. Ongoing Watering: Apply water in sufficient quantities and as often as seasonal conditions require to keep the planted areas moist at all times, well below the root system of plants.

D. Irrigation:
1. Contractor shall properly and completely maintain the irrigation system. A balanced water program shall be maintained to ensure proper germination and growth until Final Acceptance of the Work. Plants which cannot be watered sufficiently with the irrigation system shall be watered by means of a hose.
2. All controllers are to have each station individually adjusted on a weekly basis. System shall be set considering the application rate each area is capable of receiving. The system shall operate on short intervals, with the cycle repeating at a later time to reduce runoff.

3.12 MAINTENANCE AND PLANT ESTABLISHMENT: Amend the first sentence of Standard Specifications Section 308-6 **MAINTENANCE AND PLANT ESTABLISHMENT** to read: " **Contractor shall maintain all areas within the Work Limits of this Project** on a continuous basis...until Final Acceptance".

3.13 START OF PLANT ESTABLISHMENT: Add the following to Standard Specifications Section 308-6 **MAINTENANCE AND PLANT ESTABLISHMENT:**

A. Criteria for Start of Plant Establishment Period:
1. The Plant Establishment Period shall not start until all elements of the Project that impact the landscape are completed in accordance with the Contract Documents. Projects will not be segmented into phases.
2. Permanent power to remote controllers shall be established.
3. The Plant Establishment Period for the Project shall not begin until after the first mowing of the newly planted turf areas. For Plant Establishment purposes "First Mowing" is defined as the first mowing after the point in time that a minimum of 85% of the turf area has attained a minimum height of 2". Until the above specified percentage of turf area is established and mown, Contractor shall mow as necessary to maintain those portions of turf exceeding 2" at the mowing height of 1 1/2 inches. At no time shall any turf exceed 3" in height.
4. Written acceptance of the Park Projects Inspector must be obtained to start the Plant Establishment Period.
5. If the project maintenance fails to continuously meet standards required, the Plant Establishment Period "day count" will be suspended and will not recommence until Contractor has corrected all deficiencies.

3.14 MAINTENANCE TASKS: Add the following to Standard Specifications Section 308-6 **MAINTENANCE AND PLANT ESTABLISHMENT:**

A. General: During the contract period provide all watering, weeding, mowing, fertilizing and cultivation and spraying necessary to keep the plants and turf in a healthy growing condition and to keep the planted areas neat, edged, and attractive. All shrubs planted by Contractor shall be pinched and pruned as necessary to encourage new

growth and to eliminate rank sucker growth. Old wilted flowers and dead foliage shall be immediately pinched or cut off. Do not prune trees without written approval of the Park Projects Inspector.

B. Iron Chlorosis: After planting and during the Plant Establishment Period, in the event that any plantings exhibit iron chlorosis symptoms, apply FE 138 Geigy or equivalent at manufacturer's recommended rates.

C. Replacement Plantings: During the Plant Establishment Period, should the appearance of any planting installed by Contractor indicate weakness, that plant shall be replaced immediately with a new, healthy plant. At the end of the Plant Establishment Period, all plant materials shall be in a healthy, growing condition and spaced as indicated on the Plans.

D. Fertilization: Contractor shall apply commercial fertilizer to all turf areas at a rate of 10 pounds per 1,000 square feet, and all groundcover areas at a rate of 5 pounds per 1,000 square feet, at 30-day intervals, for 3 applications as a minimum, above and beyond the original soil preparation application.

E. Planting Establishment: All planting areas that do not show a prompt establishment of plant material, and areas where plant material is missing, shall be replanted at 10-day intervals until the plant material is established. For turf sod plantings, sod shall exhibit sufficient root growth knitting into the subgrade such that the sod can no longer be removed by hand. If a good rate of growth has not been demonstrated within 30 days of first planting/hydroseeding, Contractor shall be responsible to determine the appropriate horticultural practices necessary to obtain good growth. Contractor shall obtain agronomic soils testing of all areas not showing good growth and shall provide copies of the test results to the Park Projects Inspector to verify the appropriateness of all maintenance work performed.

F. Grading and Drainage: During the Plant Establishment Period all flow lines shall be maintained to allow for free flow of surface water. Displaced material which interferes with drainage shall be removed and placed as directed. Low spots and pockets shall be graded to drain properly. Jute netting shall be installed at flow lines and other locations where erosion is evident, when directed by the Park Projects Inspector.
1. Damage to planting areas shall be repaired immediately and throughout the Plant Establishment Period. Depressions caused by vehicles, bicycles, or foot traffic shall be filled and leveled. Replant damaged areas.
2. All paved areas shall be washed and maintained in a neat and clean condition at all times.
3. All subsurface drains and inlets shall be periodically cleared of debris, leaves and trash and flushed with clear water to avoid build up of silt and debris.
4. Debris and trash shall be removed from the site daily.

G. Disease and Pest Control: Throughout the Plant Establishment Period, all plants shall be maintained in a disease and pest free condition. A licensed pest control operator shall be retained by Contractor to recommend and apply all pesticides, herbicides, and fungicides. Exterminate gophers, moles, and all other rodents, and repair damage.

3.15 END OF PLANT ESTABLISHMENT PERIOD: Add the following to Standard Specification Section 308-6 **MAINTENANCE AND PLANT ESTABLISHMENT:**

A. Request for Inspection: When Contractor believes the Plant Establishment Period is complete and the Project is ready for Final Acceptance, Contractor shall request inspection of the Project. The Park Projects Inspector will inspect the Project for Final Acceptance. Deficiencies noted during inspection shall extend the Plant Establishment Period until all are corrected.

B. Established Plantings: All planting areas shall show a good rate of growth and shall be well established "filled in" plantings free of voids. Bare areas will be unacceptable. Contractor shall provide sod or plantings from flats as necessary to fill in all bare areas. Such sod or plantings shall be planted a minimum of 10 days prior to the end of the Plant Establishment Period and shall have roots "knit-in" to the native soil.

C. Written Acceptance: Final Acceptance and assumption of maintenance responsibilities by City shall occur only upon the Parks Department Representative's written acceptance of the Project for maintenance by City.

3.16 CLEAN UP: Upon completion of the Work, Contractor shall smooth all ground surfaces; remove excess materials, rubbish, debris, etc.; sweep adjacent streets, curbs, gutters; wash down all walkways, and trails; and remove construction equipment from the premises.

END OF SECTION

SOIL AND PLANT LABORATORY, INC.

Surface Soil Preparation for Turf and Groundcover

Prior to amending, the surface soil in areas to be landscaped should be ripped or tilled to a minimum 9 inch depth to alleviate compaction. Uniformly broadcast and blend the following with existing soil to a 6 inch depth.

Materials	Amount/1000 sq. ft.
Nitrogen fortified organic amendment (compost* or redwood or fir sawdust)	4 cu. yds.
Fertilizer	10 lbs. 16-20-0
Soil sulfur	20 lbs.
Gypsum	35 lbs.

*Rates and fertilizers may have to be adjusted depending on analysis of selected compost.

Hydroseed Fertilizer

For amended areas to be hydroseeded the following should be added to the hydromulch mix.

AMOUNT/ACRE

200 lbs. Ureaform (38-0-0, WIN 27%)

For unamended areas to be hydroseeded the following should be added to the hydromulch mix.

AMOUNT/ACRE

300 lbs. Ureaform (38-0-0, WIN 27%)
250 lbs. 16-20-0

Tree & Shrub Planting Guidelines

1. Excavate planting pits at least twice the diameter and to the full depth of the root ball.
2. The top of the rootball should be at or slightly above final grade.
3. To improve soil chemistry, uniformly blend 2 lbs. of iron sulfate and 2 lbs. of gypsum per cubic yard of backfill soil.
4. Organic material is not required in the backfill; however if you wish, the amended surface soil or a soil blend consisting of no more than 20% by volume organic matter can be placed in the upper 12 inches of backfill only. Soil below this depth should not contain any added organic matter.
5. Place slow release fertilizer tablets in the upper 12 inches of backfill at manufacturer's recommended rates. If fertilizer amended soil is used as a backfill then the addition of slow release fertilizer tablets is not necessary.
6. Construct the water berm on the outside edge of rootball.
7. Cover the rootball with a coarse organic mulch to a maximum 4 inch depth.

Maintenance Fertilization

For turf and ground cover areas, uniformly broadcast sulfur coated urea at the rate of 5 lbs. per 1000 sq. ft. The first application should occur approximately 45 days after planting with repeat applications every 90 days. In early fall and spring, substitute a complete fertilizer such as 16-6-8 or equal for the sulfur coated urea at the rate of 6 lbs. per 1000 sq. ft. Tree and shrub plantings can be maintained with the above fertilizers; however, the frequency between applications should be every 120 days with the first application 90 days after planting. Follow each fertilization with a thorough irrigation. When plants have become well established, fertilizer applications can be less frequent.

City Business Tax Certificate No. 103549 Exp. Date 03-01-~~02~~03

Underground Service Alert
Call: TOLL FREE
1 – 800
227–2600
TWO WORKING DAYS BEFORE YOU DIG

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REGISTERED LANDSCAPE ARCHITECT
Paul L. Haden, Lic. No. 1972
Signature
Date 3/15/02
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

REGISTERED CIVIL ENGINEER NO.
EXPIRATION DATE: DATE:

Landscape Architecture
Urban Design
Planning
Habitat Restoration
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California 92672
Phone 949.366.6624
Fax 949.366.6626
www.thecollaborativewest.com
TheCollaborativeWest

RiverWalk Medians
at La Sierra University
Prepared For: Griffin Industries

SCALE: *None*
DATE: Feb. 26, 2002
BENCH MARK

MARK	REVISIONS		APPR.	DATE
⚠	N.T.S	03/21/02		

DESIGNED BY *T.C.W.* DRAWN BY *TCW* CHECKED BY *RC*

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGR.		3/19/2002
PLANNING DEPT.		3/15/02
PARKS DEPT.		03/15/02
Dpty. P.W. Director		
STREET SERVICES		

APPROVED BY
Tom Boyd
DIRECTOR OF PUBLIC WORKS
DATE 3/20/02

Planting Specifications
Riverwalk Parkway Median

PROJECT NO. *GI01-000*
R-3561-ML
SHEET 36 OF 36
FILE NO.: *PS-2*

RiverWalk Parkway Medians PC - 4268 -M